

# Service Manual

FM/AM Stereo Tuner

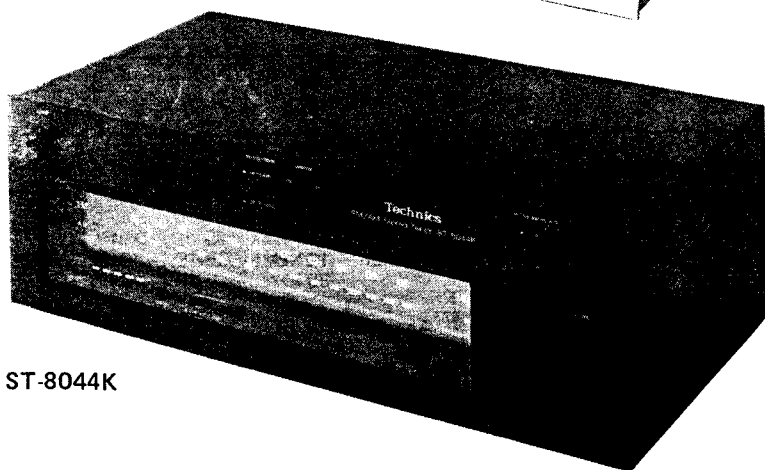
## ST-8044

(E), (EG), (X), (XA),  
(XAL), (XGH)

## ST-8044K

(E), (EG), (X), (XA),  
(XAL), (XGH), (EB)

ST-8044



ST-8044K

- \* The models ST-8044 (E, EG) and ST-8044K (E, EG) are available in Scandinavia and European only.
- \* The models ST-8044 (X, XA) and ST-8044K (X, XA) are available in Asia, Latin America, Middle East and Africa only.
- \* The models ST-8044 (XAL) and ST-8044K (XAL) are available in Australia only.
- \* The models ST-8044 (XGH) and ST-8044K (XGH) are available in Holland only.
- \* The model ST-8044K (EB) is available in Belgium only.

### TECHNICAL SPECIFICATIONS

Specifications are subject to change without notice for further improvement.

#### [DIN 45 500]

#### FM TUNER SECTION

|                                           |                                   |
|-------------------------------------------|-----------------------------------|
| Frequency range                           | 88 ~ 108 MHz                      |
| Antenna terminals                         | 300Ω (balanced), 75Ω (unbalanced) |
| Sensitivity (±40 kHz deviation)           |                                   |
| S/N 30 dB                                 | 1.9μV (300Ω), 1.3μV (75Ω)         |
| S/N 26 dB                                 | 1.7μV (300Ω), 1.2μV (75Ω)         |
| S/N 20 dB                                 | 1.5μV (300Ω), 0.9μV (75Ω)         |
| IHF usable sensitivity                    | 1.9μV (IHF '58)                   |
| IHF S/N 46 dB stereo quieting sensitivity | 25μV (75Ω)                        |
| Total harmonic distortion                 | MONO 0.15%                        |
|                                           | STEREO 0.3%                       |
| S/N (±40 kHz deviation)                   | MONO 68 dB (IHF: 75 dB)           |
|                                           | STEREO 65 dB (IHF: 70 dB)         |
| Frequency response                        | 20 Hz ~ 15 kHz, +0.5 dB, -1.5 dB  |
| Alternate channel selectivity             | 75 dB                             |
| Capture ratio                             | 1.0 dB                            |
| Image rejection at 98 MHz                 | 55 dB                             |
| IF rejection at 98 MHz                    | 85 dB                             |
| Spurious response rejection at 98 MHz     | 80 dB                             |
| AM suppression                            | 55 dB                             |
| Stereo separation                         | 1 kHz 45 dB, 10 kHz 35 dB         |
| Leak carrier                              | 19 kHz -35 dB (-40 dB, IHF)       |
|                                           | 38 kHz -48 dB (-40 dB, IHF)       |

|                                    |                         |
|------------------------------------|-------------------------|
| Limiting point                     | 1.2μV                   |
| Bandwidth                          | IF amplifier 180 kHz    |
|                                    | FM demodulator 1000 kHz |
| Channel balance (250 Hz ~ 6300 Hz) | ±1.5 dB                 |

#### AM TUNER SECTION

|                             |                |
|-----------------------------|----------------|
| Frequency range             | 525 ~ 1605 kHz |
| Sensitivity (S/N 20 dB)     | 30μV, 250μV/m  |
| Selectivity                 | 30 dB          |
| Image rejection at 1000 kHz | 50 dB          |
| IF rejection at 1000 kHz    | 40 dB          |

#### GENERAL

|                            |                                                |
|----------------------------|------------------------------------------------|
| Output voltage             | 0.6V                                           |
| Power consumption          | 16W                                            |
| Power supply (50 Hz/60 Hz) | 110V/120V/220V/240V                            |
| Dimensions (W x H x D)     | 430 x 142 x 25.4 mm<br>(16 1/2" x 5 1/2" x 1") |
| Weight                     | 4.2 kg (9.3 lb.)                               |

# Technics

Matsushita Electric Trading Co., Ltd.  
P.O. Box 288, Central Osaka Ja

## TECHNISCHE DATEN

Spezifikationen können infolge von Verbesserungen ohne Ankündigung geändert werden.

### [DIN 45 500]

#### UKW-TUNERTEIL

|                                                         |                                         |
|---------------------------------------------------------|-----------------------------------------|
| Frequenzgang                                            | 88 ~ 108 MHz                            |
| Antennenanschluss                                       | 300Ω (symmetrisch), 75Ω (unsymmetrisch) |
| Empfindlichkeit (±40 kHz Hub)                           |                                         |
| 30 dB Rauschabstand                                     | 1,9μV (300Ω), 1,3μV (75Ω)               |
| 26 dB Rauschabstand                                     | 1,7μV (300Ω), 1,2μV (75Ω)               |
| 20 dB Rauschabstand                                     | 1,5μV (300Ω), 0,9μV (75Ω)               |
| Empfindlichkeit nach IHF                                | 1,9μV (IHF '58)                         |
| 46 dB Rauschabstand utilisable Empfindlichkeit nach IHF | 25μV (75Ω), STEREO                      |
| Klirrfaktor                                             | MONO 0,15%<br>STEREO 0,3%               |
| Rauschabstand (±40 kHz Hub)                             |                                         |
| MONO                                                    | 68 dB (IHF: 75 dB)                      |
| STEREO                                                  | 65 dB (IHF: 70 dB)                      |
| Frequenzgang                                            | 20 Hz ~ 15 kHz, +0,5 dB, -1,5 dB        |
| Selektivität                                            | 75 dB                                   |
| Gleichwellen-Selektion                                  | 1,0 dB                                  |
| Spiegelfrequenzunterdrückung bei 98 MHz                 | 55 dB                                   |
| ZF-Festigkeit bei 98 MHz                                | 85 dB                                   |
| Unselektivität-Dämpfung bei 98 MHz                      | 80 dB                                   |
| AM-Unterdrückung                                        | 55 dB                                   |

|                                    |                                                 |
|------------------------------------|-------------------------------------------------|
| Kanaltrennung                      | 1 kHz 45 dB, 10 kHz 35 dB                       |
| Hilfsträgerdämpfung (Pilotton)     |                                                 |
| 19 kHz                             | -35 dB (-40 dB, IHF)                            |
| 38 kHz                             | -48 dB (-40 dB, IHF)                            |
| Begrenzungseinsatz                 | 1,2μV                                           |
| Bandbreite                         | ZF-Verstärker 180 kHz<br>Radiodetektor 1000 kHz |
| Kanalabweichung (250 Hz ~ 6300 Hz) | ±1,5 dB                                         |

#### AM-TUNERTEIL

|                                        |                |
|----------------------------------------|----------------|
| Frequenzgang                           | 525 ~ 1605 kHz |
| Empfindlichkeit (20 dB Rauschabstand)  | 30μV, 250μV/m  |
| Selektivität                           | 30 dB          |
| Spiegelfrequenz-Selektion bei 1000 kHz | 50 dB          |
| ZF-Festigkeit bei 1000 kHz             | 40 dB          |

#### ALLGEMEINE DATEN

|                            |                     |
|----------------------------|---------------------|
| Ausgangsspannung           | 0,6V                |
| Leistungsaufnahme          | 16W                 |
| Netzspannung (50 Hz/60 Hz) | 110V/120V/220V/240V |
| Abmessungen (B x H x T)    | 430 x 142 x 254 mm  |
| Gewicht                    | 4,2 kg              |

## CARACTERISTIQUES TECHNIQUES

Sujet à changement sans préavis.

### [DIN 45 500]

#### PARTIE TUNER FM

|                                               |                                                      |
|-----------------------------------------------|------------------------------------------------------|
| Gamme reçue                                   | 88 ~ 108 MHz                                         |
| Impédance d'antenne                           | 300Ω (symétrique) 75Ω (asymétrique)                  |
| Sensibilité (±40 kHz déviation)               |                                                      |
| Signal/bruit 30 dB                            | 1,9μV (300Ω), 1,3μV (75Ω)                            |
| Signal/bruit 26 dB                            | 1,7μV (300Ω), 1,2μV (75Ω)                            |
| Signal/bruit 20 dB                            | 1,5μV (300Ω), 0,9μV (75Ω)                            |
| IHF Sensibilité                               | 1,9μV (IHF '58)                                      |
| IHF Sensibilité pour S/B 46 dB                | 25μV (75Ω), STEREO                                   |
| Distorsion harmonique total                   |                                                      |
| MONO                                          | 0,15%                                                |
| STEREO                                        | 0,3%                                                 |
| Signal/bruit (±40 kHz déviation)              | MONO 68 dB (IHF: 75 dB)<br>STEREO 65 dB (IHF: 70 dB) |
| Réponse de fréquence                          | 20 Hz ~ 15 kHz, +0,5 dB, -1,5 dB                     |
| Sélectivité en canaux alternés                | 75 dB                                                |
| Taux de capture                               | 1,0 dB                                               |
| Réjection de fréquence image à 98 MHz         | 55 dB                                                |
| Réjection FI à 98 MHz                         | 85 dB                                                |
| Réjection de réception non sélective à 98 MHz | 80 dB                                                |
| Suppression AM                                | 55 dB                                                |

|                                          |                                                            |
|------------------------------------------|------------------------------------------------------------|
| Séparation stéréophonique                | 1 kHz 45 dB, 10 kHz 35 dB                                  |
| Courant porteur de dispersion            | 19 kHz -35 dB (-40 dB, IHF)<br>38 kHz -48 dB (-40 dB, IHF) |
| Point limite                             | 1,2μV                                                      |
| Largeur de bande                         | Amplificateur FI 180 kHz<br>Démodulateur FM 1000 kHz       |
| Equilibrage de canaux (250 Hz ~ 6300 Hz) | ±1,5 dB                                                    |

#### PARTIE TUNER AM

|                                         |                |
|-----------------------------------------|----------------|
| Gamme reçue                             | 525 ~ 1605 kHz |
| Sensibilité (Rapport S/B 20 dB)         | 30μV, 250μV/m  |
| Sélectivité                             | 30 dB          |
| Réjection de fréquence image à 1000 kHz | 50 dB          |
| Réjection FI à 1000 kHz                 | 40 dB          |

#### GENERALITES

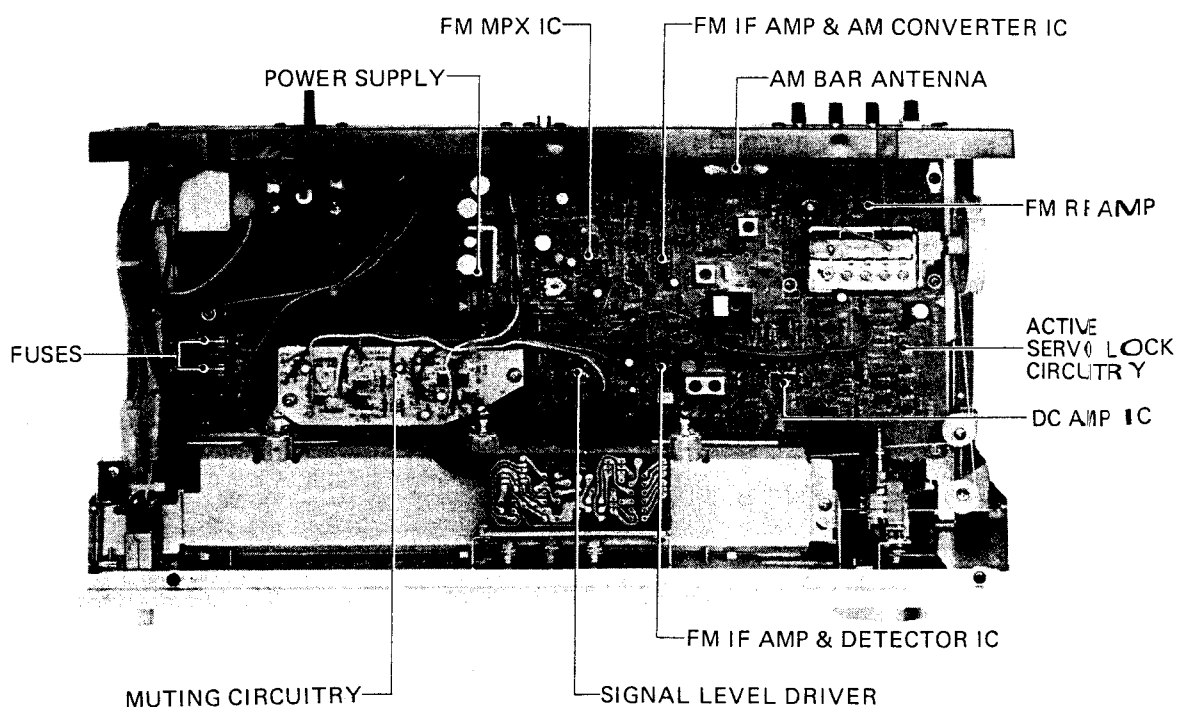
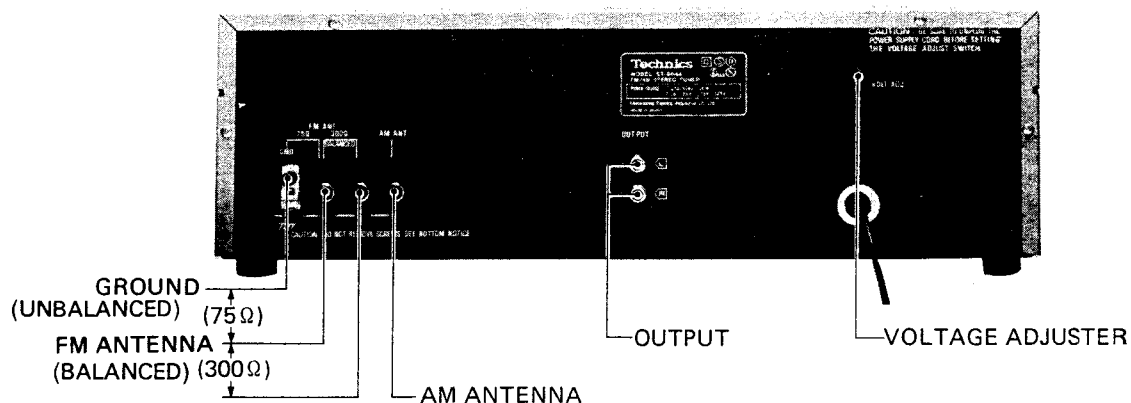
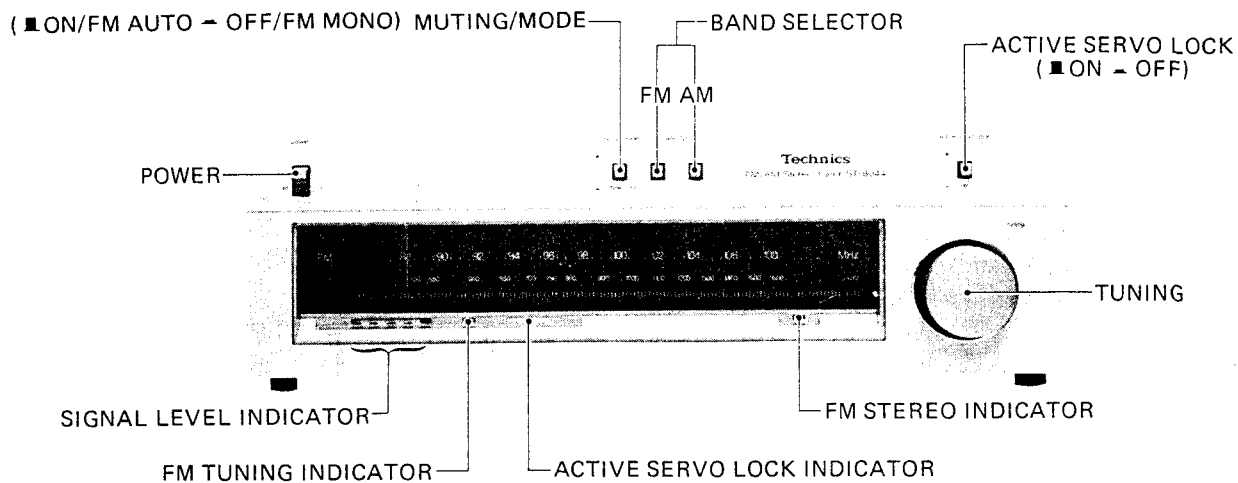
|                            |                     |
|----------------------------|---------------------|
| Tension de sortie          | 0,6V                |
| Consommation               | 16W                 |
| Alimentation (50 Hz/60 Hz) | 110V/120V/220V/240V |
| Dimensions (L x H x P)     | 430 x 142 x 254 mm  |
| Poids                      | 4,2 kg              |

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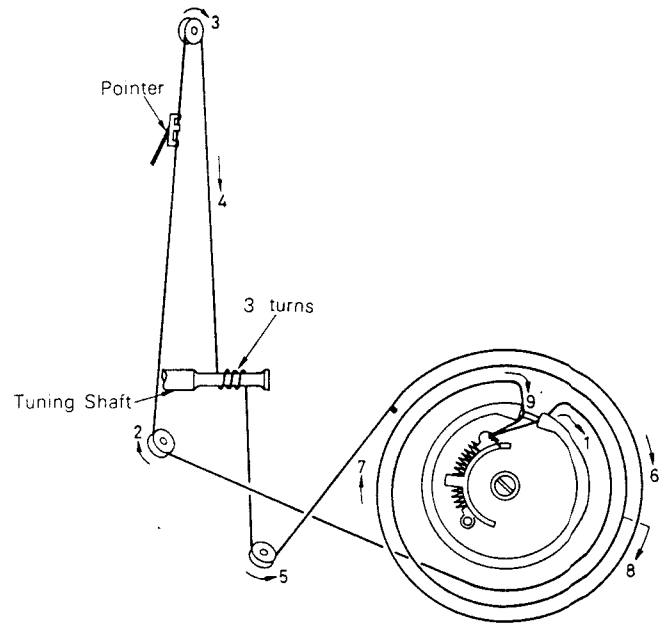
ST-8044K

## ■ LOCATION OF CONTROLS



## DIAL CORD INSTALLATION GUIDE

- For threading a fresh cord, proceed as follows.
  1. Prepare a fresh cord more than 180 cm (70-15/16") in length.
  2. Bring the variable capacitor into a state where the drum is completely turned to the right (maximum capacity and lowest frequency for the variable capacitor).
  3. Direct the cord in the order from 1 to 9.
  4. Stretch the cord in such a tension as the spring length is elongated by 1.5 times that of the original state.
  5. Fix the knot of the cord with the bond.



## ALIGNMENT POINTS

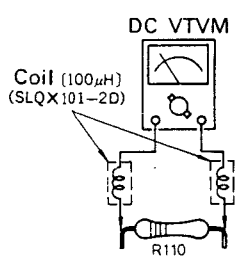
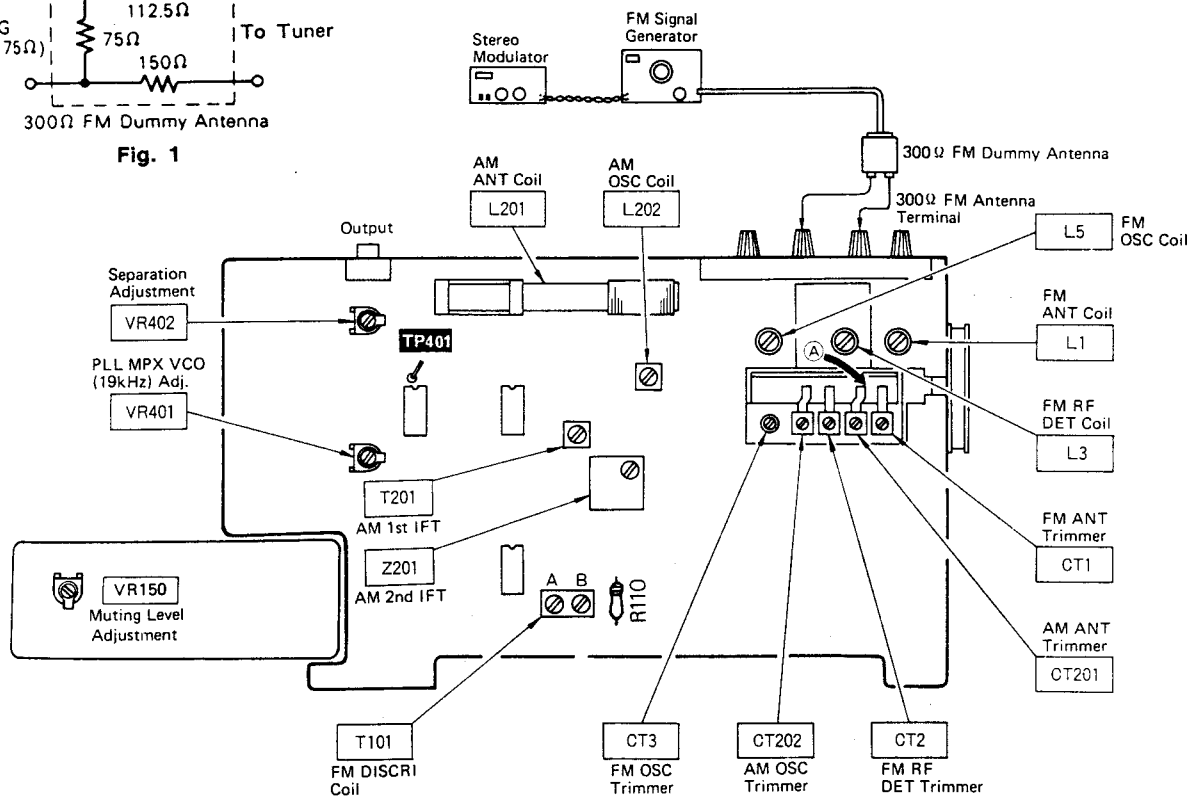
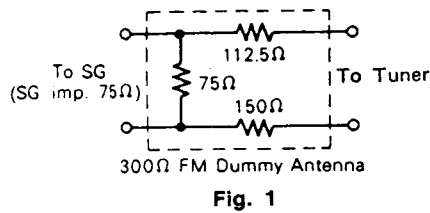


Fig. 2

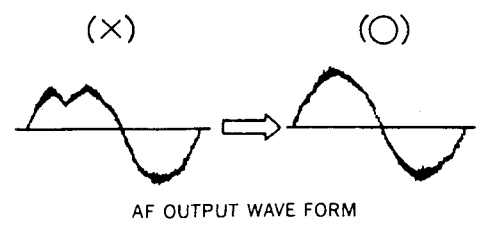


Fig. 3

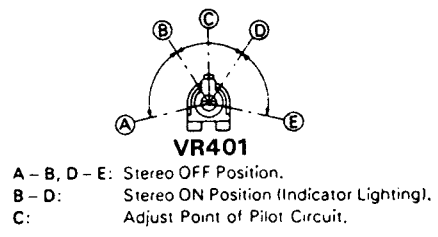


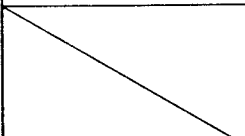
Fig. 4

**■ ALIGNMENT INSTRUCTIONS ————— ENGLISH**

| Notes:                                                                                                                                                                                                   |                                                               |                                          |                                                                                                                                                                                                                         |                                                                                               |                                                                                                                                                                                                                                                                                                                 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Band selector switch. . . . .                                                                                                                                                                         |                                                               | { AM (AM Alignment)<br>FM (FM Alignment) |                                                                                                                                                                                                                         | 4. Maintain line voltage at rated voltage.                                                    |                                                                                                                                                                                                                                                                                                                 |
| 2. FM muting & mode switch . . . .                                                                                                                                                                       |                                                               | off/mono                                 |                                                                                                                                                                                                                         | 5. 300Ω FM dummy antenna . . . . . Refer to fig. 1                                            |                                                                                                                                                                                                                                                                                                                 |
| 3. Active servo lock switch. . . . .                                                                                                                                                                     |                                                               | off                                      |                                                                                                                                                                                                                         | 6. Output of signal generator should be no higher than necessary to obtain an output reading. |                                                                                                                                                                                                                                                                                                                 |
| AM/FM SIGNAL GENERATOR                                                                                                                                                                                   |                                                               | DIAL<br>SETTING                          | INDICATOR<br>(VTVM or SCOPE)                                                                                                                                                                                            | ADJUSTMENT<br>POINTS                                                                          | REMARKS                                                                                                                                                                                                                                                                                                         |
| CONNECTION                                                                                                                                                                                               | FREQUENCY                                                     |                                          |                                                                                                                                                                                                                         |                                                                                               |                                                                                                                                                                                                                                                                                                                 |
| <b>AM ALIGNMENT</b>                                                                                                                                                                                      |                                                               |                                          |                                                                                                                                                                                                                         |                                                                                               |                                                                                                                                                                                                                                                                                                                 |
| 1 High side through 0.001μF to <b>AM</b> antenna trimmer terminal. Common to chassis.                                                                                                                    | 450kHz (30% Mod.) with 400 Hz) (For United Kingdom to 470kHz) | Point of non-interference                | Connect AC VTVM or scope to "OUTPUT" terminals.                                                                                                                                                                         | T201 (1st IFT)<br>Z201 (2nd IFT)                                                              | Adjust for maximum output.                                                                                                                                                                                                                                                                                      |
| 2 Fashion loop of several turns of wire and radiate signal into loop of tuner                                                                                                                            | 600kHz (30% Mod.) with 400Hz)                                 | 600kHz                                   | Connect AC VTVM or scope to "OUTPUT" terminals.                                                                                                                                                                         | L202 (OSC Coil)<br>L201 (ANT Coil)                                                            | Adjust for maximum output. Adjust L201 by moving coil bobbin along ferrite core.                                                                                                                                                                                                                                |
| 3 Turns of wire and radiate signal into loop of tuner                                                                                                                                                    | 1500kHz (30% Mod.) with 400Hz)                                | 1500kHz                                  | Connect AC VTVM or scope to "OUTPUT" terminal.                                                                                                                                                                          | CT202 (OSC Trimmer)<br>CT201 (ANT Trimmer)                                                    | Adjust for maximum output. Repeat steps (2) and (3).                                                                                                                                                                                                                                                            |
| <b>FM IF ALIGNMENT</b>                                                                                                                                                                                   |                                                               |                                          |                                                                                                                                                                                                                         |                                                                                               |                                                                                                                                                                                                                                                                                                                 |
| 4                                                                                                                                                                                                        | No-Signal                                                     | Point of non-interference                | Connect DC VTVM to R110 resistor. (Refer to fig. 2)                                                                                                                                                                     | T101 (DISCRI IFT) A                                                                           | <ul style="list-style-type: none"> <li>• FM muting/mode switch to "on/auto" position.</li> <li>• Adjust T101 (A) core so that voltage measured in signal mode is 0V in 300mV range.</li> </ul>                                                                                                                  |
| <b>FM RF ALIGNMENT</b>                                                                                                                                                                                   |                                                               |                                          |                                                                                                                                                                                                                         |                                                                                               |                                                                                                                                                                                                                                                                                                                 |
| 5 Connect to FM 300Ω antenna terminal through 300Ω FM dummy antenna.                                                                                                                                     | 90MHz (100% Mod.) with 400Hz) weak input                      | 90MHz                                    | Connect scope to "OUTPUT" terminal.                                                                                                                                                                                     | L5 (OSC Coil)<br>L3 (RF DET Coil)<br>L1 (ANT Coil)                                            | <ul style="list-style-type: none"> <li>• Add weak input so that noise is included in the output wave form.</li> <li>• Make the adjustment so that the output wave form is vertically symmetrical. (Fig. 3)</li> <li>• Repeat the steps 5 and 6 until the frequency correctly matches the dial scale.</li> </ul> |
| 6                                                                                                                                                                                                        | 106MHz (100% Mod. with 400Hz) weak input                      | 106MHz                                   | Connect scope to "OUTPUT" terminal.                                                                                                                                                                                     | CT3 (OSC Trimmer)<br>CT2 (RF DET Trimmer)<br>CT1 (ANT Trimmer)                                |                                                                                                                                                                                                                                                                                                                 |
| <b>FM MONO DISTORTION ALIGNMENT</b>                                                                                                                                                                      |                                                               |                                          |                                                                                                                                                                                                                         |                                                                                               |                                                                                                                                                                                                                                                                                                                 |
| 7 Connect to FM 300Ω antenna terminal through 300Ω FM dummy antenna.                                                                                                                                     | 100MHz (100% Mod. with 400Hz)                                 | 100MHz                                   | Connect distortion meter to "OUTPUT" terminals.                                                                                                                                                                         | T101 (DISCRI IFT) B                                                                           | <ul style="list-style-type: none"> <li>• Set the FM muting/mode switch to "on/auto" and then check step 4 in r.o signal mode.</li> <li>• If it is deflected, re-adjust A (primary side) of T101.</li> <li>• Adjust T101 (B) core so that distortion of right, and left channels are minimized.</li> </ul>       |
| <b>FM MUTING LEVEL ALIGNMENT</b> (other products for [X, XA])                                                                                                                                            |                                                               |                                          |                                                                                                                                                                                                                         |                                                                                               |                                                                                                                                                                                                                                                                                                                 |
| 8 Connect to FM 300Ω antenna terminal through 300Ω FM dummy antenna. Apply 16 dB (6.3μV) to tuner                                                                                                        | 100MHz (100% Mod. with 400Hz)                                 | 100MHz                                   | Connect AC VTVM or scope to "OUTPUT" terminals.                                                                                                                                                                         | VR150 (MUTING LEVEL)                                                                          | <ul style="list-style-type: none"> <li>• FM muting/mode switch to "on/auto".</li> <li>• Adjust so that output can be obtained.</li> </ul>                                                                                                                                                                       |
| <b>FM MUTING LEVEL ALIGNMENT</b> (Only product for [X, XA])                                                                                                                                              |                                                               |                                          |                                                                                                                                                                                                                         |                                                                                               |                                                                                                                                                                                                                                                                                                                 |
| 9 Connect to FM 300Ω antenna terminal through 300Ω FM dummy antenna. Apply 10dB (3.2μV) to tuner.                                                                                                        | 100MHz (100% Mod. with 400Hz)                                 | 100MHz                                   | Connect AC VTVM or scope to "OUTPUT" terminals.                                                                                                                                                                         | VR150 (MUTING LEVEL)                                                                          | <ul style="list-style-type: none"> <li>• FM muting/mode switch to "on/auto".</li> <li>• Adjust so that output can be obtained.</li> </ul>                                                                                                                                                                       |
| <b>FM MPX PILOT ALIGNMENT</b>                                                                                                                                                                            |                                                               |                                          |                                                                                                                                                                                                                         |                                                                                               |                                                                                                                                                                                                                                                                                                                 |
| Using a frequency counter                                                                                                                                                                                |                                                               |                                          | Using alternate system                                                                                                                                                                                                  |                                                                                               |                                                                                                                                                                                                                                                                                                                 |
| 1 100MHz Non-modulated mono signal applied to set.<br>2 FM muting/mode switch to "on"<br>3 Connect frequency counter to <b>TP401</b> through resistor (100kΩ).<br>4 Adjust <b>VR401</b> to 19kHz, ±30Hz. |                                                               |                                          | 1 Apply stereo signal from generator or stereo station to tuner.<br>2 Adjust <b>VR401</b> until stereo indicator lights up. Cement arm of <b>VR401</b> as shown in fig. 4.                                              |                                                                                               |                                                                                                                                                                                                                                                                                                                 |
| <b>SEPARATION ALIGNMENT</b>                                                                                                                                                                              |                                                               |                                          |                                                                                                                                                                                                                         |                                                                                               |                                                                                                                                                                                                                                                                                                                 |
| PREPARATIONS                                                                                                                                                                                             |                                                               |                                          | ADJUSTING PROCEDURE                                                                                                                                                                                                     |                                                                                               |                                                                                                                                                                                                                                                                                                                 |
| 1 Add 100MHz, 1kHz, 30% pilot 10% modulation, 60dB stereo signal to the tuner.<br>2 Connect AC VTVM or scope to output terminal through low pass filter (fc = 15 ~ 19kHz).                               |                                                               |                                          | 1 FM muting/mode switch to "on/auto".<br>2 Adjust <b>VR402</b> so that <b>R</b> output is minimized when stereo modulator is in <b>L</b> (Lch. modulation) mode and that <b>L</b> output is minimized in <b>R</b> mode. |                                                                                               |                                                                                                                                                                                                                                                                                                                 |

## ■ ANWEISUNGEN FÜR ABGLEICHUNG ————— DEUTSCH

(Für Deutschland)

|                                                                                                                                                                                                                                                                                                                                                                                   |                              |                                           |                                                                                                                                                                                                               |                                                                |                                                                                                                                                                                                                                                                                                                                     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Anmerkungen:</b><br>1. Bereichsschalter ..... { AM (AM Abgleich)<br>FM (FM Abgleich)<br>2. FM Muting/Mode-Schalter .. off/mono<br>3. Active servo lock-Schalter .. off<br>4. Netzspannung auf ihren Sollwert halten.<br>5. UKW-Kunstantenne, 300 ohm ..... Vgl. Abb. 1.<br>6. Der Ausgang des Meßsenders darf nicht höher sein als unbedingt notwendig für eine gute Ablesung. |                              |                                           |                                                                                                                                                                                                               |                                                                |                                                                                                                                                                                                                                                                                                                                     |
| AM/UKW MESSENDER                                                                                                                                                                                                                                                                                                                                                                  |                              | SKALENZEIGEREIN-<br>STELLUNG<br>DES TUNER | ANZEIGEGERÄT<br>(Röhrenvoltmeter oder<br>Oszillograph bzw.<br>Klirrfaktor-Meßgerät)                                                                                                                           | ABGLEICHSPUNKTE                                                | BEMERKUNGEN                                                                                                                                                                                                                                                                                                                         |
| ANSCHLUSS                                                                                                                                                                                                                                                                                                                                                                         | FREQUENZ                     |                                           |                                                                                                                                                                                                               |                                                                |                                                                                                                                                                                                                                                                                                                                     |
| <b>AM-ABGLEICH</b>                                                                                                                                                                                                                                                                                                                                                                |                              |                                           |                                                                                                                                                                                                               |                                                                |                                                                                                                                                                                                                                                                                                                                     |
| 1. Heißes Ende des Meßsenders über einen 0,001µF Kondensator an den AM Antenneneingang schließen. Kaltes Ende an Masse                                                                                                                                                                                                                                                            | 450kHz (400Hz Modul., 30%)   | Kein Empfang                              | Wechselstrom Röhrenvoltmeter oder Oszillograph über den Ausgang "OUTPUT" schließen.                                                                                                                           | T201 (1. IFT) (A)<br>T201 (2. IFT)                             | Auf max. Ausgang abgleichen.                                                                                                                                                                                                                                                                                                        |
| 2. Das Meßsendersignal induktiv in den Tuner speisen. Hierzu behelfsmäßig eine Rahmenantenne fertigen und an den Eingang schließen.                                                                                                                                                                                                                                               | 600kHz (400Hz Modul., 30%)   | 600kHz                                    | Wechselstrom Röhrenvoltmeter oder Oszillograph über den Ausgang "OUTPUT" schließen.                                                                                                                           | L203 (Osc. Spule)<br>L201 (Ant. Spule)                         | Auf max. Ausgang abgleichen. L201 wird abgeglichen, indem die Spule am Ferritstab entlanggeschoben wird.                                                                                                                                                                                                                            |
| 3. Das Meßsendersignal induktiv in den Tuner speisen. Hierzu behelfsmäßig eine Rahmenantenne fertigen und an den Eingang schließen.                                                                                                                                                                                                                                               | 1500kHz (400Hz Modul., 30%)  | 1500kHz                                   | Wechselstrom Röhrenvoltmeter oder Oszillograph über den Ausgang "OUTPUT" schließen.                                                                                                                           | CT202 (Osc. Trimmer)<br>CT201 (Ant. Trimmer)                   | Auf max. Ausgang abgleichen. Schritt (2) und (3) sind zu wiederholen.                                                                                                                                                                                                                                                               |
| <b>UKW ZF-ABGLEICH</b>                                                                                                                                                                                                                                                                                                                                                            |                              |                                           |                                                                                                                                                                                                               |                                                                |                                                                                                                                                                                                                                                                                                                                     |
| 4.                                                                                                                                                                                                                                                                                            | Kein Signal                  | Kein Empfang                              | Gleichspannungsmesser über den Ausgang R110 widerstand schließen. (Vgl. Abb. 2)                                                                                                                               | T101 (Diskriminator IFT) A                                     | <ul style="list-style-type: none"> <li>• FM muting/mode-Schalter auf "on/auto".</li> <li>• Den Kern von T101 (A) so justieren, daß die gemessene Spannung im signallosen Modus 0V im 300mV Bereich beträgt.</li> </ul>                                                                                                              |
| <b>UKW-HF-ABGLEICH</b>                                                                                                                                                                                                                                                                                                                                                            |                              |                                           |                                                                                                                                                                                                               |                                                                |                                                                                                                                                                                                                                                                                                                                     |
| 5. Meßsender über eine Kunstantenne an den UKW-Antenneneingang schließen.                                                                                                                                                                                                                                                                                                         | 87,5MHz (400Hz Modul., 100%) | 87,5MHz (Frequenz min.)                   | Oszillograph über den Ausgang "OUTPUT" schließen.                                                                                                                                                             | L5 (Osc. Spule)                                                | <ul style="list-style-type: none"> <li>• Einen schwachen Eingang geben, bei den Geräusch in der Ausgangswellenform enthalten wird.</li> </ul>                                                                                                                                                                                       |
| 6. Meßsender über eine Kunstantenne an den UKW-Antenneneingang schließen.                                                                                                                                                                                                                                                                                                         | 90MHz (400Hz Modul., 100%)   | 90MHz                                     | Oszillograph über den Ausgang "OUTPUT" schließen.                                                                                                                                                             | L3 (Det. Spule)<br>L1 (Ant. Spule)                             | <ul style="list-style-type: none"> <li>• So einstellen, daß die Ausgangswellenform vertikal symmetrisch wird. (Abb. 3)</li> </ul>                                                                                                                                                                                                   |
| 7. Meßsender über eine Kunstantenne an den UKW-Antenneneingang schließen.                                                                                                                                                                                                                                                                                                         | 106MHz (400Hz Modul., 100%)  | 106MHz                                    | Oszillograph über den Ausgang "OUTPUT" schließen.                                                                                                                                                             | CT3 (Osc. Trimmer)<br>CT2 (Det. Trimmer)<br>CT1 (Ant. Trimmer) | <ul style="list-style-type: none"> <li>• Die Einstellung von 5, 6 und 7 wiederholen, bis die Frequenz mit der Skala übereinstimmt.</li> </ul>                                                                                                                                                                                       |
| <b>ABGLEICH AUF MIN. VERZERRUNG IN STELLUNG UKW-MONO</b>                                                                                                                                                                                                                                                                                                                          |                              |                                           |                                                                                                                                                                                                               |                                                                |                                                                                                                                                                                                                                                                                                                                     |
| 8. Meßsender über eine Kunstantenne an den UKW-Antenneneingang schließen.                                                                                                                                                                                                                                                                                                         | 100MHz (400Hz Modul., 100%)  | 100MHz                                    | Klirrfaktor-Meßbrücke über den Ausgang "OUTPUT" schließen.                                                                                                                                                    | T101 (Diskriminator IFT) [B]                                   | <ul style="list-style-type: none"> <li>• FM muting/mode-Schalter auf "on/auto" stellen, dann in signalloser Mode den Schritt 4 feststellen.</li> <li>• Wenn Abweichung vorliegt, Alprimäre Seite von T101 wieder einstellen.</li> <li>• T101 (B) lernen für minimale Verzerrung der rechten und linken Kanäle justieren.</li> </ul> |
| <b>UKW-UKW-MUTING-ABGLEICH</b>                                                                                                                                                                                                                                                                                                                                                    |                              |                                           |                                                                                                                                                                                                               |                                                                |                                                                                                                                                                                                                                                                                                                                     |
| 9. Meßsender über eine Kunstantenne an den UKW-Antenneneingang schließen. Meßsender auf 16 dB (6,3µV) einstellen.                                                                                                                                                                                                                                                                 | 100MHz (400Hz Modul., 100%)  | 100MHz                                    | Wechselstrom Röhrenvoltmeter oder Oszillograph über den Ausgang "OUTPUT" schließen.                                                                                                                           | VR150                                                          | <ul style="list-style-type: none"> <li>• FM muting/mode-Schalter auf "on/auto".</li> <li>• So einstellen, daß ein Ausgang zu vernehmen ist.</li> </ul>                                                                                                                                                                              |
| <b>UKW-STEREO-DEKODER-ABGLEICH</b>                                                                                                                                                                                                                                                                                                                                                |                              |                                           |                                                                                                                                                                                                               |                                                                |                                                                                                                                                                                                                                                                                                                                     |
| Unter Verwendung eines Zählers                                                                                                                                                                                                                                                                                                                                                    |                              |                                           | Alternativ-Meßmethode                                                                                                                                                                                         |                                                                |                                                                                                                                                                                                                                                                                                                                     |
| 1. Unmoduliertes Mono-Signal 100MHz in das Gerät speisen.<br>2. FM muting/mode-Schalter auf "on/auto" stellen.<br>3. Zähler über einen Widerstand 100K ohm an TP401 schließen.<br>4. VR401 auf 19kHz ± 30Hz einstellen.                                                                                                                                                           |                              |                                           | 1. Stereosignal entweder von einem Stereogenerator oder einem Sender einspeisen.<br>2. VR401 so einstellen, bis die Stereolampe auf leuchtet. Schleifer von VR401 sichern, wie in Abb. 4 gezeigt.             |                                                                |                                                                                                                                                                                                                                                                                                                                     |
| <b>KANALTRENNUNG-ABGLEICH</b>                                                                                                                                                                                                                                                                                                                                                     |                              |                                           |                                                                                                                                                                                                               |                                                                |                                                                                                                                                                                                                                                                                                                                     |
| 1. Das Gerät auf 100MHz, 1kHz 30%, Pilot 10% Modulation, 60dB Stereosignal einstellen.<br>2. Wechselstrom-Röhrenvoltmeter oder Oszillograph durch Tiefpaßfilter (fc = 15 ~ 19kHz) an Ausgangsanschlüsse des Gerätes anschließen.                                                                                                                                                  |                              |                                           | 3. FM muting/mode-Schalter auf "on/auto".<br>4. VR402 auf minimale Anzeige des R-Ausgangs bei Stereomodulator in L-(L-Kanalmodulation) Modus, ungefähr minimale Anzeige des L-Ausgangs in R-Modus abgleichen. |                                                                |                                                                                                                                                                                                                                                                                                                                     |

# INSTRUCTIONS D'ALIGNEMENT FRANÇAIS

# TO REMOVE CABINET AND BOTTOM BOARD

## To remove cabinet

1. Remove the 4 screws. (nos. ① ~ ④ screws in fig. 5).
2. Remove the 4 screws. (nos. ⑤ ~ ⑧ screws in fig. 6).
3. Sliding it toward **A** direction and lifting it upward as shown in fig. 5.
4. When the cabinet is installed, insert the lug of cabinet into the space between the front panel and chassis as shown in fig. 7.

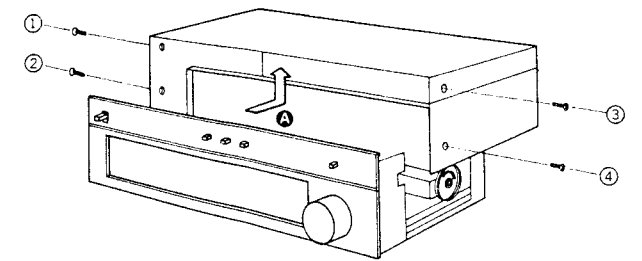


Fig. 5

## To remove bottom board

1. Remove the 3 screws. (nos. ⑨ ~ ⑪ screws in fig. 8).
2. Remove the 4 feet screws. (nos. ⑫ ~ ⑮ screws in fig. 8).
3. Remove bottom board.

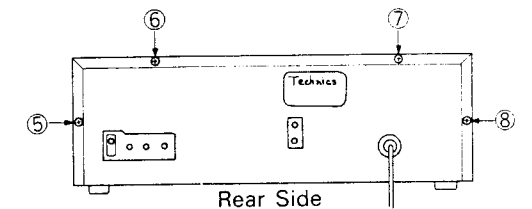


Fig. 6

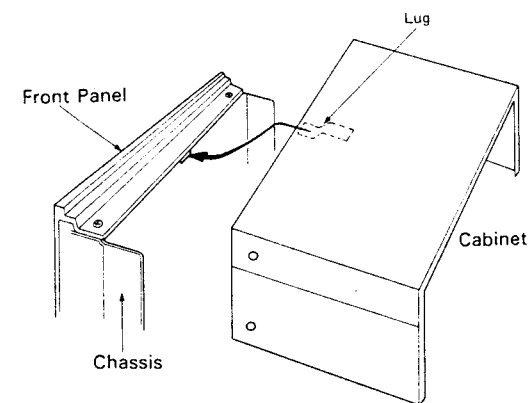


Fig. 7

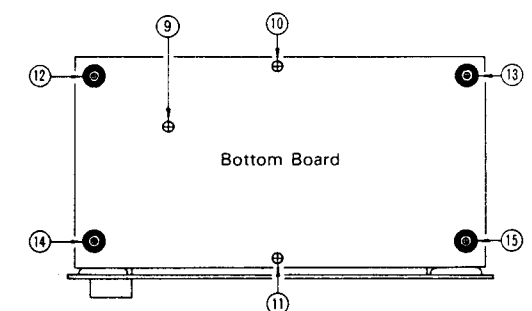
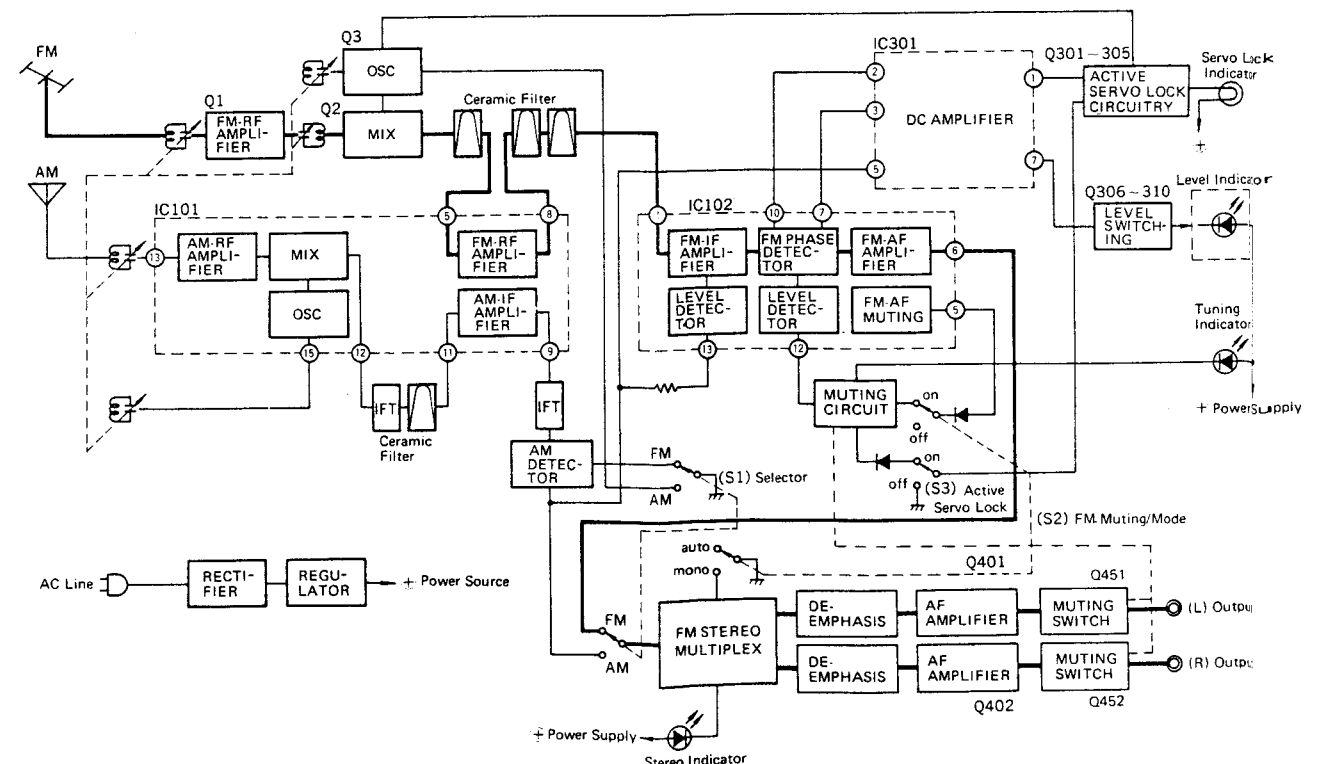


Fig. 8

# BLOCK DIAGRAM



|                                                                                                                                               |                                           |                                            |                                                                                                                                                                                                                         |                                                                                                                |                                                                                                                                                                                                                                                                                                       |
|-----------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Notes:</b>                                                                                                                                 |                                           |                                            |                                                                                                                                                                                                                         |                                                                                                                |                                                                                                                                                                                                                                                                                                       |
| 1. Sélecteur de gamme . . . . .                                                                                                               |                                           | { AM (Alignement AM)<br>FM (Alignement FM) |                                                                                                                                                                                                                         | 4. Conserver la tension du secteur à la tension nominale.                                                      |                                                                                                                                                                                                                                                                                                       |
| 2. Commutateur de silencieux/mode . . . . .                                                                                                   |                                           | off/mono                                   |                                                                                                                                                                                                                         | 5. Antenne fictive FM 300Ω . . . . . Voir fig. 1.                                                              |                                                                                                                                                                                                                                                                                                       |
| 3. Commutateur de servo-verrouillage . . . . .                                                                                                |                                           | off                                        |                                                                                                                                                                                                                         | 6. Le signal du générateur ne doit pas être plus élevé qu'il n'est nécessaire à obtenir une lecture en sortie. |                                                                                                                                                                                                                                                                                                       |
| AM/FM GENERATEUR                                                                                                                              |                                           | AIGUILLE<br>SUR<br>LE CADRAN               | INDICATEUR (VOLT-<br>METRE ELECTRONIQUE<br>OSCILLOSCOPE OU<br>DISTORSIONMETRE)                                                                                                                                          | POINTS DE<br>REGLAGE                                                                                           | OBSERVATIONS                                                                                                                                                                                                                                                                                          |
| BRANCHEMENT                                                                                                                                   | FREQUENCE                                 |                                            |                                                                                                                                                                                                                         |                                                                                                                |                                                                                                                                                                                                                                                                                                       |
| ALIGNEMENT AM                                                                                                                                 |                                           |                                            |                                                                                                                                                                                                                         |                                                                                                                |                                                                                                                                                                                                                                                                                                       |
| Côté chaud, à travers<br>0.001μF, sur le trimmer<br>de l'antenne AM,<br>commun an shâssis                                                     | 455kHz<br>(modulé à 30%<br>par 400Hz)     | Point sans<br>signal                       | C.A. voltmètre électro-<br>nique ou oscilloscope sur<br>prise de sortie de<br>l'appareil.                                                                                                                               | T201 (1 transfo FI)<br>Z201 (2 transfo FI)                                                                     | Réglez au maximum de<br>signal de sortie.                                                                                                                                                                                                                                                             |
| Faire une boucle de<br>quelques tours et rayon-<br>ner le signal dans le<br>cadre du l'ampli-tuner.                                           | 600kHz<br>(modulé à 30%<br>par 400Hz)     | 600kHz                                     | C.A. voltmètre électro-<br>nique ou oscilloscope sur<br>prise de sortie de<br>l'appareil.                                                                                                                               | L202 (bobine OSC)<br>L201 (bobine ANT)                                                                         | Réglez au maximum de<br>signal de sortie. Réglez<br>L201 en déplaçant la<br>bobine le long du noyau<br>de ferrite.                                                                                                                                                                                    |
| Faire une boucle de<br>quelques tours et rayon-<br>ner le signal dans le<br>cadre du l'ampli-tuner.                                           | 1500kHz<br>(modulé à 30%<br>per 400Hz)    | 1500kHz                                    | C.A. voltmètre électro-<br>nique ou oscilloscope sur<br>prise de sortie de<br>l'appareil.                                                                                                                               | CT202<br>(trimmer OSC)<br>CT201<br>(trimmer ANT)                                                               | Réglez au maximum de<br>signal de sortie.<br>Recommencez les étapes<br>(2) et (3).                                                                                                                                                                                                                    |
| ALIGNEMENT FI-FM                                                                                                                              |                                           |                                            |                                                                                                                                                                                                                         |                                                                                                                |                                                                                                                                                                                                                                                                                                       |
|                                                                                                                                               | Sans signal                               | Point sans<br>signal                       | C.C. voltmètre sur prise<br>R110 résistance.<br>(Voir fig. 2)                                                                                                                                                           | T101 (A)<br>(transfo FI discrir)                                                                               | •Commutateur de silencieux<br>sur "on/auto".<br>•Régler le noyau T101 (A)<br>de telle sorte que le voltage<br>mesuré dans le mode sans<br>signal, soit de 0V dans la<br>gamme des 300mV.                                                                                                              |
| ALIGNEMENT RF-FM                                                                                                                              |                                           |                                            |                                                                                                                                                                                                                         |                                                                                                                |                                                                                                                                                                                                                                                                                                       |
| Branchez sur la prise<br>d'antenne FM à traves<br>une antenne fictive FM                                                                      | 90MHz<br>(modulé à<br>100%<br>par 400Hz)  | 98MHz                                      | Oscilloscope sur prise de<br>sortie du tuner.                                                                                                                                                                           | L5 (bobine OSC)<br>L3 (bobine DET)<br>L1 (bobine ANT)                                                          | •Appliquer une entrée faible<br>de telle sorte que le parasite<br>soit compris dans la forme<br>de l'onde de sortie.<br>•Faire le réglage de telle sorte<br>que la forme de l'onde de<br>sortie soit verticalement<br>symétrique. (Voir fig. 3)                                                       |
| Branchez sur la prise<br>d'antenne FM à travers<br>une antenne fictive FM.                                                                    | 106MHz<br>(modulé à<br>100%<br>par 400Hz) | 106MHz                                     | Oscilloscope sur prise de<br>sortie du tuner.                                                                                                                                                                           | CT3 (trimmer OSC)<br>CT2 (trimmer DET)<br>CT1 (trimmer ANT)                                                    | •Refaire les réglages 5 et 6<br>jusqu'à ce que la fréquence<br>corresponde correctement<br>avec l'échells du cadran.                                                                                                                                                                                  |
| REGLAGE DE LA DISTORSION FM EN MONO                                                                                                           |                                           |                                            |                                                                                                                                                                                                                         |                                                                                                                |                                                                                                                                                                                                                                                                                                       |
| Branchez sur la prise<br>d'antenne FM à travers<br>une antenne fictive FM.                                                                    | 100MHz<br>(modulé à<br>100%<br>par 400Hz) | 100MHz                                     | Distorsiomètre sur prise de<br>sortie du tuner.                                                                                                                                                                         | T101 (Transfo FI<br>discr.) [B]                                                                                | •Placer la commutateur<br>Sourdisine FM/Mode sur<br>"on/auto" et vérifier l'étape<br>4 dans un mode sans signal.<br>•S'il est déplacé, re-régler A<br>(côté primaire) de T101.<br>•Régler le noyau T101 (B)<br>de telle sorte que la<br>distorsion des canaux droit<br>et gauche soit la plus faible. |
| REGLAGE DU SEUIL DU SILENCIEUX D'ACCORD                                                                                                       |                                           |                                            |                                                                                                                                                                                                                         |                                                                                                                |                                                                                                                                                                                                                                                                                                       |
| Branchez sur la prise<br>d'antenne FM à travers<br>une antenne fictive FM.<br>Niveau de sortie du<br>générateur 16 dB<br>(6.3μV).             | 100MHz<br>(modulé à<br>100%<br>par 400Hz) | 100MHz                                     | C.A. voltmètre électro-<br>nique ou oscilloscope sur<br>prise de sortie de<br>l'appareil.                                                                                                                               | VR150                                                                                                          | •Commutateur de<br>silencieux sur "on/auto"<br>•Régler pour obtenir une<br>lecture en sortie.                                                                                                                                                                                                         |
| ALIGNEMENT DU PILOTE MULTIPLEX FM                                                                                                             |                                           |                                            |                                                                                                                                                                                                                         |                                                                                                                |                                                                                                                                                                                                                                                                                                       |
| Avec un fréquencemètre                                                                                                                        |                                           |                                            | Par un outre système                                                                                                                                                                                                    |                                                                                                                |                                                                                                                                                                                                                                                                                                       |
| 1. Signal mono 100MHz non modulé appliqué à l'appareil.                                                                                       |                                           |                                            | 1. Appliquez à l'appareil un signal stéréo provenant d'un gégérateur ou de la réception d'un émetteur.                                                                                                                  |                                                                                                                |                                                                                                                                                                                                                                                                                                       |
| 2. Commutateur de silencieux sur "on/auto".                                                                                                   |                                           |                                            | 2. Régler VR401 jusqu'à ce que l'indicateur de stéréophonie s'allume. Collez le curseur de VR401 comme indiqué sur la fig. 4.                                                                                           |                                                                                                                |                                                                                                                                                                                                                                                                                                       |
| 3. Branchez le fréquencemètre sur TP401 à travers une résistance de 100kΩ.                                                                    |                                           |                                            |                                                                                                                                                                                                                         |                                                                                                                |                                                                                                                                                                                                                                                                                                       |
| 4. Régler VR401 sur 19kHz ±30Hz.                                                                                                              |                                           |                                            |                                                                                                                                                                                                                         |                                                                                                                |                                                                                                                                                                                                                                                                                                       |
| REGLAGE DE LA SEPARATION DES CANAUX                                                                                                           |                                           |                                            |                                                                                                                                                                                                                         |                                                                                                                |                                                                                                                                                                                                                                                                                                       |
| Préparations                                                                                                                                  |                                           |                                            | Procédure de réglage                                                                                                                                                                                                    |                                                                                                                |                                                                                                                                                                                                                                                                                                       |
| 1. Ajouter 100MHz, 1kHz, Modulation, pilote 10%, signal stéréophonique 60dB, à l'appareil.                                                    |                                           |                                            | 1. Commutateur de silencieux sur "on/auto".                                                                                                                                                                             |                                                                                                                |                                                                                                                                                                                                                                                                                                       |
| 2. Brancher un voltmètre électronique C.A. ou un oscilloscope aux bornes de sortie, par l'intermédiaire du filtre passe-bas (fc = 15 ~19kHz). |                                           |                                            | 2. Régler VR402 de telle sorte que la sortie droite soit minimale quand la commande d'accord stéréophonique est dans le mode gauche (modulation du canal gauche) et que la sortie gauche soit minimale dans mode droit. |                                                                                                                |                                                                                                                                                                                                                                                                                                       |

## ST-8044/K ST-8044/K

## ■ REPLACEMENT PARTS LIST ..... Electric Parts

- NOTES:** 1. Part numbers are indicated on most mechanical parts.  
Please use this part number for parts orders.  
2.  $\Delta$  indicates that only parts specified by the manufacturer be used for safety.

| Ref. No.         | Part No.            | Part Name & Description                 |
|------------------|---------------------|-----------------------------------------|
| <b>RESISTORS</b> |                     |                                         |
| R1               | $\Delta$ ERD25TJ104 | Carbon, 100k $\Omega$ , 1/4W, $\pm 5\%$ |
| R2               | ERD25FJ101          | Carbon, 100 $\Omega$ , 1/4W, $\pm 5\%$  |
| R3               | ERD25TJ562          | Carbon, 5.6k $\Omega$ , 1/4W, $\pm 5\%$ |
| R4               | ERD25TJ333          | Carbon, 33k $\Omega$ , 1/4W, $\pm 5\%$  |
| R5               | ERD25TJ561          | Carbon, 560 $\Omega$ , 1/4W, $\pm 5\%$  |
| R6               | ERD25TJ222          | Carbon, 2.2k $\Omega$ , 1/4W, $\pm 5\%$ |
| R7               | ERD25TJ123          | Carbon, 12k $\Omega$ , 1/4W, $\pm 5\%$  |
| R8               | ERD25TJ333          | Carbon, 33k $\Omega$ , 1/4W, $\pm 5\%$  |
| R9               | ERD25TJ222          | Carbon, 2.2k $\Omega$ , 1/4W, $\pm 5\%$ |
| R10              | ERD25TJ471          | Carbon, 470 $\Omega$ , 1/4W, $\pm 5\%$  |
| R11              | ERD25TJ104          | Carbon, 100k $\Omega$ , 1/4W, $\pm 5\%$ |
| R101             | ERD25TJ102          | Carbon, 1k $\Omega$ , 1/4W, $\pm 5\%$   |
| R102, 103        | ERD25TJ331          | Carbon, 330 $\Omega$ , 1/4W, $\pm 5\%$  |
| R104             | ERD25TJ331          | Carbon, 330 $\Omega$ , 1/4W, $\pm 5\%$  |
| R105             | ERD25TJ682          | Carbon, 6.8k $\Omega$ , 1/4W, $\pm 5\%$ |
| R106             | ERD25TJ221          | Carbon, 220 $\Omega$ , 1/4W, $\pm 5\%$  |
| R107             | $\Delta$ ERD25FJ470 | Carbon, 47 $\Omega$ , 1/4W, $\pm 5\%$   |
| R108             | ERD25TJ392          | Carbon, 3.9k $\Omega$ , 1/4W, $\pm 5\%$ |
| R109             | ERD25TJ562          | Carbon, 5.6k $\Omega$ , 1/4W, $\pm 5\%$ |
| R110             | ERD25TJ103          | Carbon, 10k $\Omega$ , 1/4W, $\pm 5\%$  |
| R111             | ERD25TJ272          | Carbon, 2.7k $\Omega$ , 1/4W, $\pm 5\%$ |
| R112             | ERD25TJ104          | Carbon, 100k $\Omega$ , 1/4W, $\pm 5\%$ |
| R113             | ERD25TJ103          | Carbon, 10k $\Omega$ , 1/4W, $\pm 5\%$  |
| R114             | ERD25TJ223          | Carbon, 22k $\Omega$ , 1/4W, $\pm 5\%$  |
| R115             | ERD25TJ104          | Carbon, 100k $\Omega$ , 1/4W, $\pm 5\%$ |
| R117             | ERD25TJ271          | Carbon, 270 $\Omega$ , 1/4W, $\pm 5\%$  |
| R118             | ERD25TJ104          | Carbon, 100k $\Omega$ , 1/4W, $\pm 5\%$ |
| R119             | ERD25TJ102          | Carbon, 1k $\Omega$ , 1/4W, $\pm 5\%$   |
| R120             | ERD25TJ103          | Carbon, 10k $\Omega$ , 1/4W, $\pm 5\%$  |
| R121, 122        | ERD25TJ333          | Carbon, 33k $\Omega$ , 1/4W, $\pm 5\%$  |
| R150             | ERD25TJ333          | Carbon, 33k $\Omega$ , 1/4W, $\pm 5\%$  |
| R151             | ERD25TJ104          | Carbon, 100k $\Omega$ , 1/4W, $\pm 5\%$ |
| R152             | ERD25TJ333          | Carbon, 33k $\Omega$ , 1/4W, $\pm 5\%$  |
| R153             | ERD25TJ224          | Carbon, 220k $\Omega$ , 1/4W, $\pm 5\%$ |
| R154             | ERD25TJ103          | Carbon, 10k $\Omega$ , 1/4W, $\pm 5\%$  |
| R155             | ERD25TJ102          | Carbon, 1k $\Omega$ , 1/4W, $\pm 5\%$   |
| R156             | ERD25TJ103          | Carbon, 10k $\Omega$ , 1/4W, $\pm 5\%$  |
| R158             | ERD25TJ393          | Carbon, 39k $\Omega$ , 1/4W, $\pm 5\%$  |
| R159             | ERD25TJ154          | Carbon, 150k $\Omega$ , 1/4W, $\pm 5\%$ |
| R201             | ERD25TJ152          | Carbon, 1.5k $\Omega$ , 1/4W, $\pm 5\%$ |
| R202             | ERD25TJ472          | Carbon, 4.7k $\Omega$ , 1/4W, $\pm 5\%$ |
| R203             | ERD25TJ151          | Carbon, 150 $\Omega$ , 1/4W, $\pm 5\%$  |
| R204             | ERD25TJ152          | Carbon, 1.5k $\Omega$ , 1/4W, $\pm 5\%$ |
| R205             | ERD25TJ333          | Carbon, 33k $\Omega$ , 1/4W, $\pm 5\%$  |
| R206             | ERD25TJ334          | Carbon, 330k $\Omega$ , 1/4W, $\pm 5\%$ |
| R207             | ERD25TJ682          | Carbon, 6.8k $\Omega$ , 1/4W, $\pm 5\%$ |
| R208             | ERD25TJ104          | Carbon, 100k $\Omega$ , 1/4W, $\pm 5\%$ |
| R209             | ERD25TJ123          | Carbon, 12k $\Omega$ , 1/4W, $\pm 5\%$  |
| R301             | ERD25TJ223          | Carbon, 22k $\Omega$ , 1/4W, $\pm 5\%$  |
| R302             | ERD25TJ684          | Carbon, 680k $\Omega$ , 1/4W, $\pm 5\%$ |
| R303, 304        | ERD25TJ154          | Carbon, 150k $\Omega$ , 1/4W, $\pm 5\%$ |
| R305             | ERD25TJ683          | Carbon, 68k $\Omega$ , 1/4W, $\pm 5\%$  |
| R306             | ERD25TJ682          | Carbon, 6.8k $\Omega$ , 1/4W, $\pm 5\%$ |
| R307             | ERD25TJ333          | Carbon, 33k $\Omega$ , 1/4W, $\pm 5\%$  |
| R308             | ERD25TJ100          | Carbon, 10 $\Omega$ , 1/4W, $\pm 5\%$   |
| R309             | ERD25TJ473          | Carbon, 47k $\Omega$ , 1/4W, $\pm 5\%$  |
| R310             | ERD25TJ223          | Carbon, 22k $\Omega$ , 1/4W, $\pm 5\%$  |
| R311             | ERD25TJ272          | Carbon, 2.7k $\Omega$ , 1/4W, $\pm 5\%$ |
| R312             | ERD25TJ104          | Carbon, 100k $\Omega$ , 1/4W, $\pm 5\%$ |
| R313             | ERD25TJ472          | Carbon, 4.7k $\Omega$ , 1/4W, $\pm 5\%$ |
| R314             | ERD25TJ154          | Carbon, 150k $\Omega$ , 1/4W, $\pm 5\%$ |
| R315             | ERD25TJ223          | Carbon, 22k $\Omega$ , 1/4W, $\pm 5\%$  |
| R316, 317        | ERD25TJ103          | Carbon, 10k $\Omega$ , 1/4W, $\pm 5\%$  |
| R318, 319        | ERD25TJ103          | Carbon, 10k $\Omega$ , 1/4W, $\pm 5\%$  |
| R320             | ERD25TJ103          | Carbon, 10k $\Omega$ , 1/4W, $\pm 5\%$  |
| R321             | ERD25TJ153          | Carbon, 15k $\Omega$ , 1/4W, $\pm 5\%$  |
| R322             | ERD25TJ183          | Carbon, 18k $\Omega$ , 1/4W, $\pm 5\%$  |
| R323             | ERD25TJ223          | Carbon, 22k $\Omega$ , 1/4W, $\pm 5\%$  |
| R324             | ERD25TJ273          | Carbon, 27k $\Omega$ , 1/4W, $\pm 5\%$  |
| R325             | ERD25TJ333          | Carbon, 33k $\Omega$ , 1/4W, $\pm 5\%$  |
| R326             | ERD25TJ391          | Carbon, 390 $\Omega$ , 1/4W, $\pm 5\%$  |
| R327, 328        | ERD25TJ331          | Carbon, 330 $\Omega$ , 1/4W, $\pm 5\%$  |
| R329             | ERD25TJ271          | Carbon, 270 $\Omega$ , 1/4W, $\pm 5\%$  |

| Ref. No.  | Part No.            | Part Name & Description                 |
|-----------|---------------------|-----------------------------------------|
| R330      | ERD25TJ221          | Carbon, 220 $\Omega$ , 1/4W, $\pm 5\%$  |
| R332      | ERD25TJ103          | Carbon, 10k $\Omega$ , 1/4W, $\pm 5\%$  |
| R335      | ERD25TJ333          | Carbon, 33k $\Omega$ , 1/4W, $\pm 5\%$  |
| R401      | $\Delta$ ERD25FJ101 | Carbon, 100 $\Omega$ , 1/4W, $\pm 5\%$  |
| R402      | ERD25TJ104          | Carbon, 100k $\Omega$ , 1/4W, $\pm 5\%$ |
| R403      | ERD25TJ153          | Carbon, 15k $\Omega$ , 1/4W, $\pm 5\%$  |
| R404      | ERD25TJ102          | Carbon, 1k $\Omega$ , 1/4W, $\pm 5\%$   |
| R405      | ERD25TJ182          | Carbon, 18k $\Omega$ , 1/4W, $\pm 5\%$  |
| R406      | ERD25TJ151          | Carbon, 150 $\Omega$ , 1/4W, $\pm 5\%$  |
| R407      | ERD25TJ102          | Carbon, 1k $\Omega$ , 1/4W, $\pm 5\%$   |
| R408, 409 | ERD25TJ392          | Carbon, 3.9k $\Omega$ , 1/4W, $\pm 5\%$ |
| R410, 411 | ERD25TJ103          | Carbon, 10k $\Omega$ , 1/4W, $\pm 5\%$  |
| R412, 413 | ERD25TJ103          | Carbon, 10k $\Omega$ , 1/4W, $\pm 5\%$  |
| R414, 415 | ERD25TJ821          | Carbon, 820 $\Omega$ , 1/4W, $\pm 5\%$  |
| R416, 417 | ERD25TJ332          | Carbon, 3.3k $\Omega$ , 1/4W, $\pm 5\%$ |
| R450      | ERD25TJ223          | Carbon, 22k $\Omega$ , 1/4W, $\pm 5\%$  |
| R451      | ERD25TJ104          | Carbon, 100k $\Omega$ , 1/4W, $\pm 5\%$ |
| R452, 453 | ERD25TJ224          | Carbon, 220k $\Omega$ , 1/4W, $\pm 5\%$ |
| R454, 455 | $\Delta$ ERD25TJ224 | Carbon, 220k $\Omega$ , 1/4W, $\pm 5\%$ |
| R501      | ERD25FJ6R8          | Carbon, 6.8 $\Omega$ , 1/4W, $\pm 5\%$  |

| Ref. No.          | Part No.             | Part Name & Description                    |
|-------------------|----------------------|--------------------------------------------|
| <b>CAPACITORS</b> |                      |                                            |
| C1                | ECCD1H100K           | Ceramic, 10pF, 50V, $\pm 10\%$             |
| C1 [XAL] only     | $\Delta$ ECKDHS101MB | Ceramic, 100pF, 400VAC, $\pm 20\%$         |
| C2                | ECCD1H120KC          | Ceramic, 12pF, 50V, $\pm 10\%$             |
| C3                | ECCD1H100K           | Ceramic, 10pF, 50V, $\pm 10\%$             |
| C4                | ECCD1H120KC          | Ceramic, 12pF, 50V, $\pm 10\%$             |
| C5                | ECKD1H102MDA         | Ceramic, 0.001 $\mu$ F, 50V, $\pm 20\%$    |
| C6                | ECCD1H040CC          | Ceramic, 4pF, 50V, $\pm 0.25pF$            |
| C7                | ECCD1H020CC          | Ceramic, 2pF, 50V, $\pm 0.25pF$            |
| C8                | ECCD1H181K           | Ceramic, 180pF, 50V, $\pm 10\%$            |
| C12               | ECCD1H070DC          | Ceramic, 7pF, 50V, $\pm 0.5pF$             |
| C13               | ECEA1ES470           | Electrolytic, 47 $\mu$ F, 25V, $\pm 10\%$  |
| C14               | ECCD1H390KC          | Ceramic, 39pF, 50V, $\pm 10\%$             |
| C15               | ECCD1H150KC          | Ceramic, 15pF, 50V, $\pm 10\%$             |
| C17               | ECKD1H102MDL         | Ceramic, 0.001 $\mu$ F, 50V, $\pm 20\%$    |
| C21               | ECCD1H100K           | Ceramic, 10pF, 50V, $\pm 10\%$             |
| C21 [XAL] only    | $\Delta$ ECKDHS101MB | Ceramic, 100pF, 400VAC, $\pm 20\%$         |
| C22               | ECCD1H070DC          | Ceramic, 7pF, 50V, $\pm 0.5pF$             |
| C23               | ECCD1H181K           | Ceramic, 180pF, 50V, $\pm 10\%$            |
| C25               | ECCD1H070DR          | Ceramic, 7pF, 50V, $\pm 0.5pF$             |
| C26               | ECKD1H102MDL         | Ceramic, 0.001 $\mu$ F, 50V, $\pm 20\%$    |
| C27               | ECCD1H181K           | Ceramic, 180pF, 50V, $\pm 10\%$            |
| C101              | ECQM1H223KZ          | Polyester, 0.022 $\mu$ F, 50V, $\pm 10\%$  |
| C102, 103         | ECKD1H223ZF          | Ceramic, 0.022 $\mu$ F, 50V, $\pm 80\%$    |
| C104, 105         | ECKD1H103ZF          | Ceramic, 0.01 $\mu$ F, 50V, $\pm 80\%$     |
| C106              | ECKD1H223ZF          | Ceramic, 0.022 $\mu$ F, 50V, $\pm 80\%$    |
| C107              | ECEA1CS221           | Electrolytic, 220 $\mu$ F, 16V             |
| C108              | ECQM1H473KZ          | Polyester, 0.047 $\mu$ F, 50V, $\pm 10\%$  |
| C110              | ECEA1JS4R7           | Electrolytic, 4.7 $\mu$ F, 63V             |
| C111              | ECCD1H101K           | Ceramic, 100pF, 50V, $\pm 10\%$            |
| C112              | ECEA50ZR47           | Electrolytic, 0.47 $\mu$ F, 50V            |
| C113              | ECEA1HS100           | Electrolytic, 10 $\mu$ F, 50V              |
| C114, 115         | ECQM1H223KZ          | Polyester, 0.022 $\mu$ F, 50V, $\pm 10\%$  |
| C116              | ECEA1ES101           | Electrolytic, 100 $\mu$ F, 25V             |
| C117              | ECKD1H223ZF          | Ceramic, 0.022 $\mu$ F, 50V, $\pm 80\%$    |
| C150              | ECKD1H103MD          | Ceramic, 0.01 $\mu$ F, 50V, $\pm 20\%$     |
| C151              | ECEA50ZR47           | Electrolytic, 0.47 $\mu$ F, 50V            |
| C152              | ECEA50Z1             | Electrolytic, 1 $\mu$ F, 50V               |
| C154              | ECEA50Z3R3           | Electrolytic, 3.3 $\mu$ F, 50V             |
| C201              | ECKD1H103MD          | Ceramic, 0.01 $\mu$ F, 50V, $\pm 20\%$     |
| C203              | ECKD1H103MD          | Ceramic, 0.01 $\mu$ F, 50V, $\pm 20\%$     |
| C204              | ECQS05361JZ          | Polystyrene, 360pF, 50V, $\pm 5\%$         |
| C205              | ECCD1H100KC          | Ceramic, 10pF, 50V, $\pm 10\%$             |
| C206              | ECEA1JS4R7           | Electrolytic, 4.7 $\mu$ F, 63V             |
| C207              | ECEA1CS330           | Electrolytic, 33 $\mu$ F, 16V              |
| C208              | ECQM1H333KZ          | Polyester, 0.033 $\mu$ F, 50V, $\pm 10\%$  |
| C209              | ECCD1H150KC          | Ceramic, 15pF, 50V, $\pm 10\%$             |
| C212 [XAL] only   | $\Delta$ ECKDHS102MD | Ceramic, 0.001 $\mu$ F, 400VAC, $\pm 20\%$ |
| C301              | ECEA1HS100           | Electrolytic, 10 $\mu$ F, 50V              |
| C302              | ECEA0JS471           | Electrolytic, 470 $\mu$ F, 6.3V            |
| C303              | ECKD1H223ZF          | Ceramic, 0.022 $\mu$ F, 50V, $\pm 80\%$    |
| C304              | ECEA25Z4R7           | Electrolytic, 4.7 $\mu$ F, 25V             |

| Ref. No.  | Part No.    | Part Name & Description                    |
|-----------|-------------|--------------------------------------------|
| C350      | ECCD1H181K  | Ceramic, 180pF, 50V, $\pm 10\%$            |
| C401      | ECEA1ES470  | Electrolytic, 47 $\mu$ F, 25V              |
| C402      | ECEA1HS100  | Electrolytic, 10 $\mu$ F, 50V              |
| C403      | ECQM1H473KZ | Polyester, 0.047 $\mu$ F, 50V, $\pm 10\%$  |
| C404      | ECQS1471JZ  | Polystyrene, 470pF, 125V, $\pm 5\%$        |
| C405      | ECEA50ZR47  | Electrolytic, 0.47 $\mu$ F, 50V            |
| C406      | ECEA50ZR22  | Electrolytic, 0.22 $\mu$ F, 50V            |
| C407      | ECEA50MR47S | Electrolytic, 0.47 $\mu$ F, 50V            |
| C408, 409 | ECQM1H123KZ | Polyester, 0.012 $\mu$ F, 50V, $\pm 10\%$  |
| C410, 411 | ECQM1H272KZ | Polyester, 0.0027 $\mu$ F, 50V, $\pm 10\%$ |
| C412, 413 | ECKD1H471KB | Ceramic, 470pF, 50V, $\pm 10\%$            |

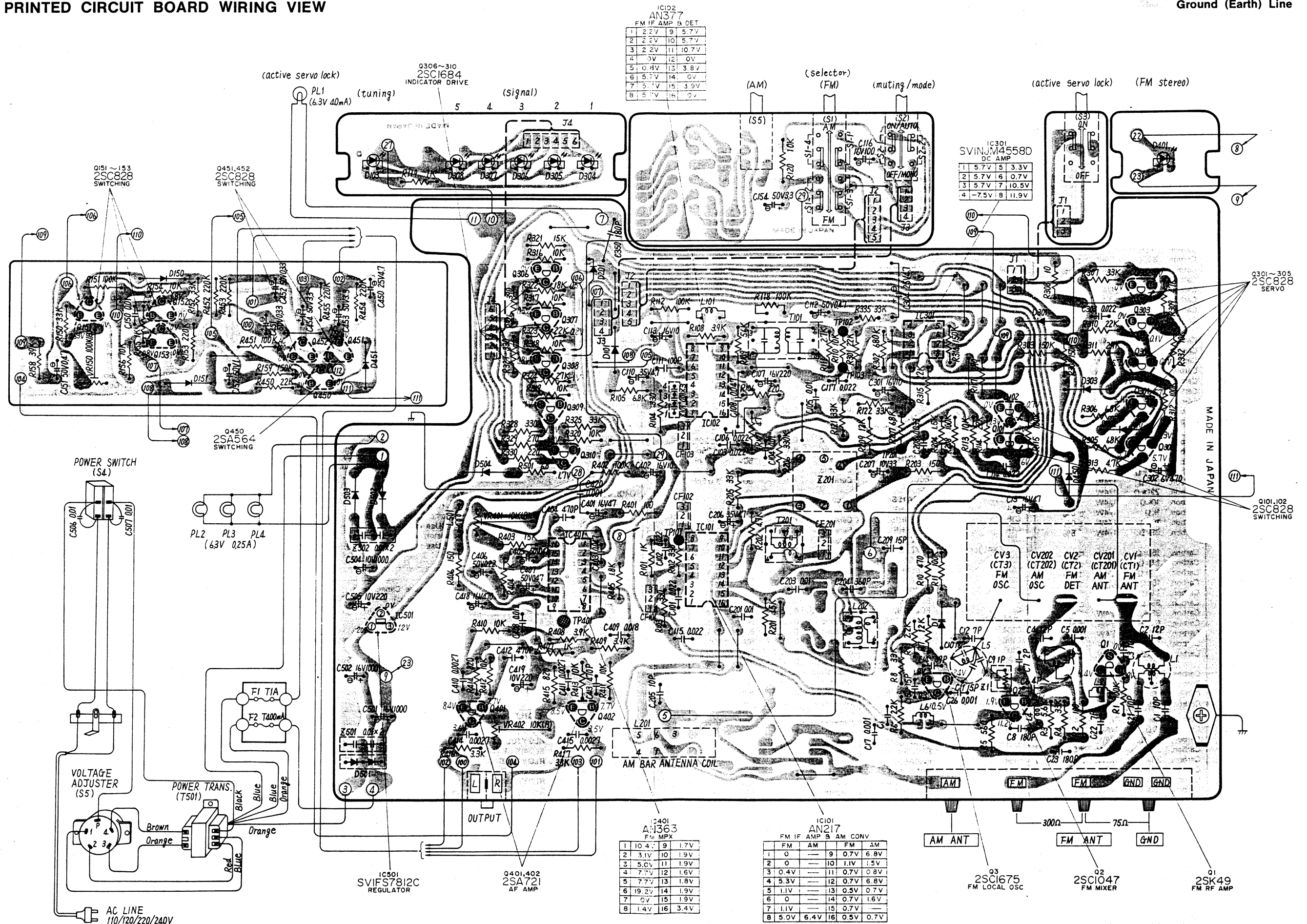
| Ref. No.                                     | Part No.           | Part Name & Description                                              |
|----------------------------------------------|--------------------|----------------------------------------------------------------------|
| <b>INTEGRATED CIRCUITS</b>                   |                    |                                                                      |
| IC101                                        | AN217P-BB          | IC, FM IF Amplifier & AM Converter                                   |
| IC102                                        | AN377N             | IC, FM IF Amplifier & Detector                                       |
| IC301                                        | SVINJM4558D        | IC, DC Amplifier                                                     |
| IC401                                        | AN363N             | IC, FM Multiplex                                                     |
| IC501                                        | SVIFS7812C         | IC, Regulator                                                        |
| <b>TRANSISTORS</b>                           |                    |                                                                      |
| Q1                                           | 2SK49-H2           | Transistor, FM RF Amplifier [FET]                                    |
| Q2                                           | <b>2SC1047-C</b>   | Transistor, FM Mixer<br>(Use in ranks C or D)                        |
| Q3                                           | 2SC1675-L1         | Transistor, FM Local Oscillator<br>(Use in ranks L1 or L2)           |
| Q101, 102, 301~305                           | <b>2SC1328-T</b>   | Transistor, Muting, Servo Lock Circuitry<br>(Use in ranks S, T or U) |
| Q306~310                                     | 2SC1684-R          | Transistor, Level Indicator Switching                                |
| Q151, 152, 153                               | <b>2SC1328-T</b>   | Transistor, Muting Switching<br>(Use in ranks S, T or U)             |
| Q401, 402                                    | <b>2SA902S-F</b>   | Transistor, AF Amplifier<br>(Use in ranks F or G)                    |
| Q450                                         | <b>2SA666AI-R</b>  | Transistor, Muting Switching<br>(Use in ranks Q, R or S)             |
| Q451, 452                                    | <b>2SC1328-T</b>   | Transistor, Muting Switching<br>(Use in ranks S, T or U)             |
| <b>DIODES</b>                                |                    |                                                                      |
| D1                                           | SVD1S2687AA        | Diode, Variable Capacitance                                          |
| D101, 150, 151, 201, 302, 303, 450, 451, 503 | MA150              | Diode, Servo Lock & Muting Switching                                 |
| D103, 304, 305, 306, 307, 308, 401           | LN21CP             | Light Emitting Diode, Stereo, Tuning & Signal Level Indicator        |
| D301                                         | OA90               | Diode, Servo Lock Circuitry Switching                                |
| D501                                         | $\Delta$ SVDMI151U | Rectifier                                                            |
| D502                                         | $\Delta$ SM112     | Rectifier                                                            |
| D504                                         | SVDMM406B          | Diode, 6V Zener                                                      |
| <b>COILS and TRANSFORMERS</b>                |                    |                                                                      |
| L1                                           | SLA4P25            | Coil, FM Antenna                                                     |
| L2                                           | <b>RLQY10S2</b>    | Coil, Choke                                                          |
| L3                                           | SLD4P21-P          | Coil, FM RF Detector                                                 |
| L4                                           | <b>RLQY15G5</b>    | Coil, Choke                                                          |
| L5                                           | SLO4P43-P          | Coil, FM Oscillator (with C9, C10, C11)                              |
| L6                                           | <b>RLQY25S2</b>    | Coil, Choke                                                          |
| L101                                         | SLQX180-2          | Coil, Choke                                                          |
| L201                                         | SLF2C15-Y          | Coil, AM Antenna                                                     |
| L202                                         | SL02C9-P           | Coil, AM Oscillator                                                  |
| L501                                         | SLQX101-2D         | Coil, Choke                                                          |
| T101                                         | SLI4D513-Z         | Transformer, FM Discriminator                                        |
| T201                                         | SLI2C125-P         | Transformer, AM IF                                                   |
| T501                                         | $\Delta$ SLT5J73   | Transformer, Power Source                                            |

| Ref. No.  | Part No.                                                                                         | Part Name & Description                    |
|-----------|--------------------------------------------------------------------------------------------------|--------------------------------------------|
| C414, 415 | ECQM1H272KZ                                                                                      | Polyester, 0.0027 $\mu$ F, 50V, $\pm 10\%$ |
| C418      | <b>ECEA1CS471</b>                                                                                | Electrolytic, 470 $\mu$ F, 16V             |
| C419      | <b>ECEA1AS221</b>                                                                                | Electrolytic, 220 $\mu$ F, 10V             |
| C420      | ECKD1H102ZF                                                                                      | Ceramic, 0.001 $\mu$ F, 50V, $\pm 80\%$    |
| C450      | <b>ECEA25Z4R7</b>                                                                                | Electrolytic, 4.7 $\mu$ F, 25V             |
| C451, 452 | <b>ECEA50ZR33</b>                                                                                | Electrolytic, 0.33 $\mu$ F, 50V            |
| C453, 454 | <b>ECEA50Z3R3</b>                                                                                | Electrolytic, 3.3 $\mu$ F, 50V             |
| C501, 502 | <b>ECEA1CS102</b>                                                                                | Electrolytic, 1000 $\mu$ F, 16V            |
| C504      | <b>ECEA1AS101</b>                                                                                | Electrolytic, 1000 $\mu$ F, 10V            |
| C505      | <b>ECEA1AS221</b>                                                                                | Electrolytic, 220 $\mu$ F, 10V             |
| C506, 507 |  ECKDHS103SE2 | Ceramic, 0.01 $\mu$ F, 400VAC, $\pm 50\%$  |

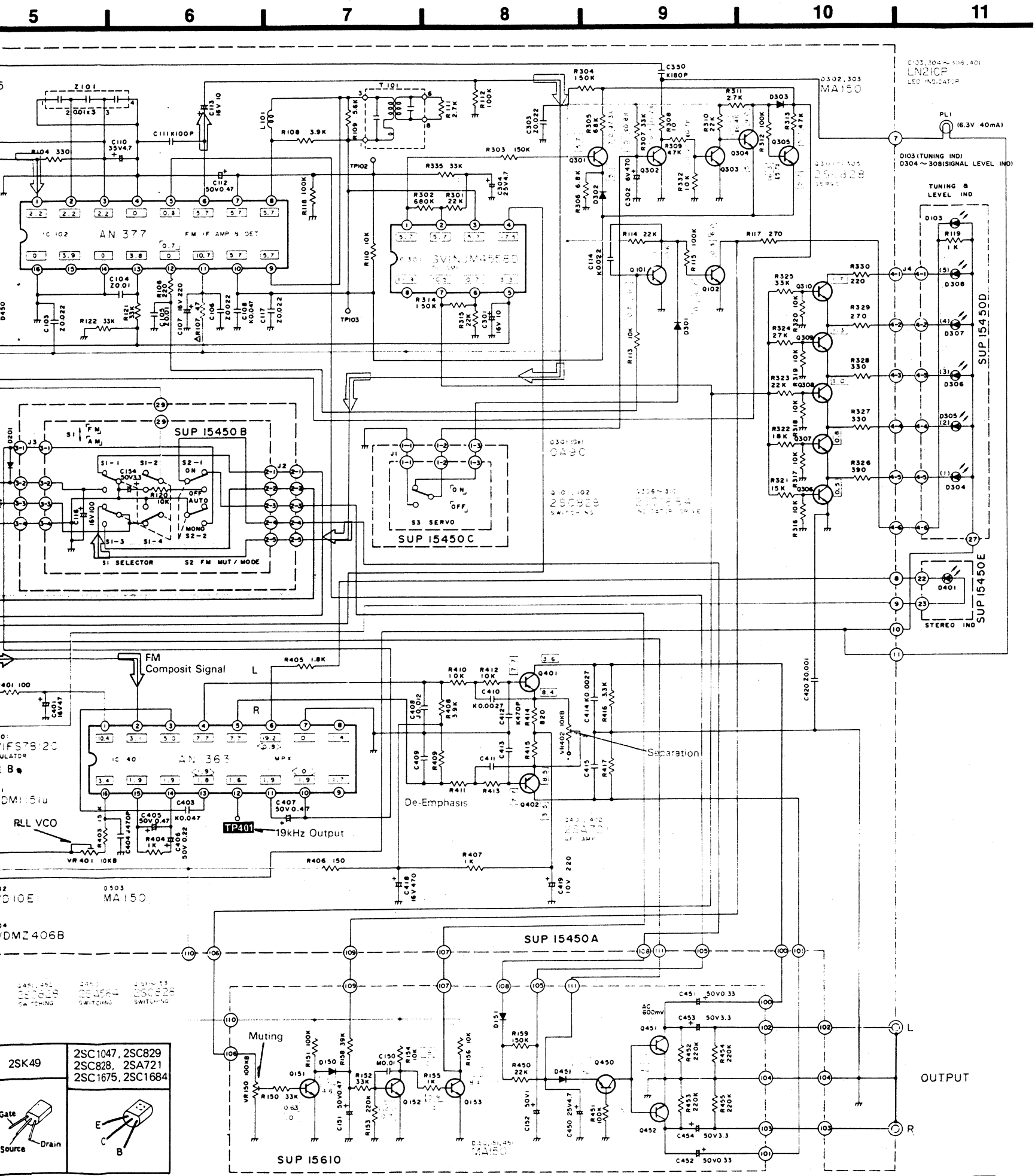
# ST-8044/K

## PRINTED CIRCUIT BOARD WIRING VIEW

Ground (Earth) Line







### SCHEMATIC DIAGRAM

\* This schematic diagram may be modified at any time with the development of new technology.

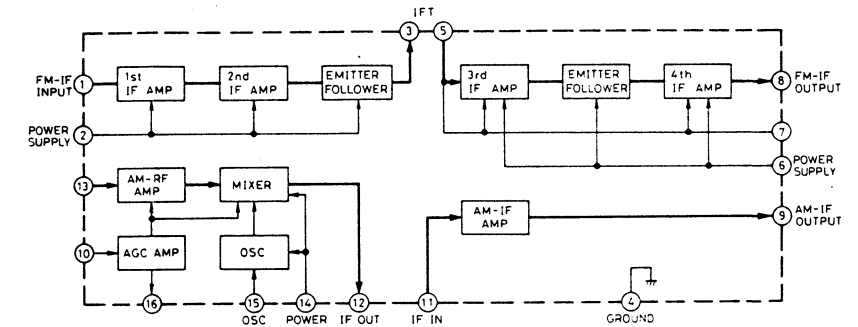
#### Notes:

1. S1-1 ~ S1-4 : Selector switch in "FM" position.
2. S2-1, S2-2 : FM muting/mode switch in "on/auto" position.
3. S3 : Active servo lock switch in "on" position.
4. S4 : Power source switch in "on" position.
5. S5 : Voltage adjuster switch in "240V" position.
6. Indicated voltage are the standard values for the unit measured by the DC electronic circuit tester (high-impedance) with the chassis taken as standard. Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester.
7. Figures in  $\square$  stand for DC voltage in FM (60dB signal reception) mode.
8. Figures in  $\square$  stand for DC voltage in AM mode.
9. Figures in  $\square$  stand for DC voltage in FM stereo signal reception mode.
10. Figures in  $\square$  stand for DC voltage in servo lock circuit operation.
11. Figures in  $\square$  stand for DC voltage in FM (no signal) muting to on mode.
12.  $\Delta$  indicates that only parts specified by the manufacturer be used for safety.
13. Signal lines  $\Rightarrow$  FM  $\Rightarrow$  AM  $\Rightarrow$  AF
14. To represent transistors, Q is used instead of TR, (Ex. TR1  $\rightarrow$  Q1)

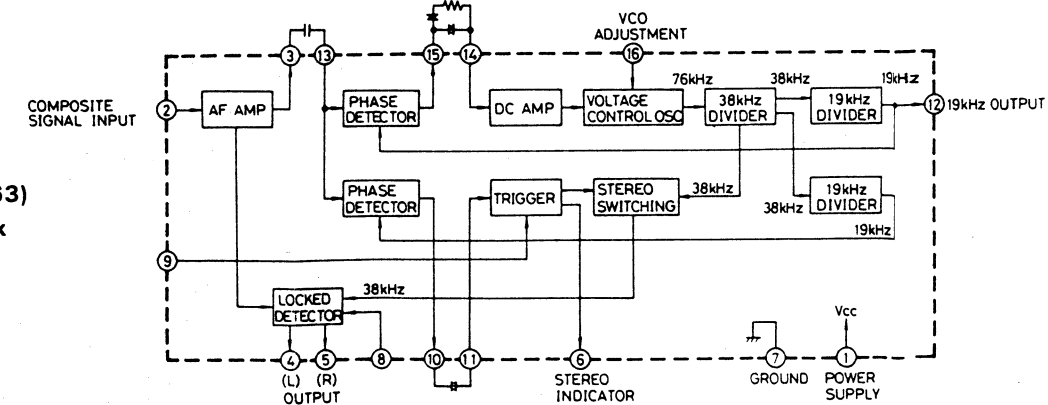
### BLOCK DIAGRAM OF IC

\* This is the basic block diagram of the inside circuit of IC. In an actual circuit, there may be sometimes idle terminals or some different functions other than the basic circuit.

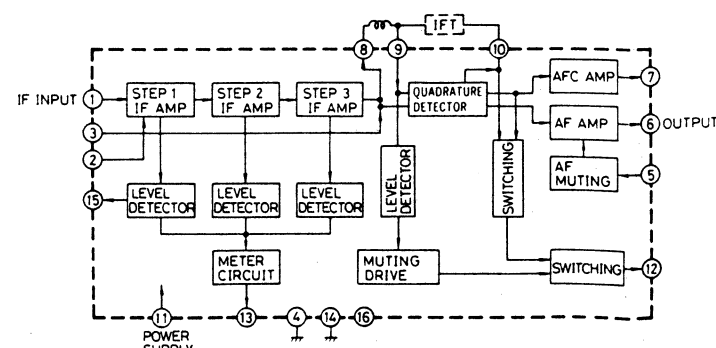
IC101 (AN217)  
FM IF Amplifier &  
AM Converter



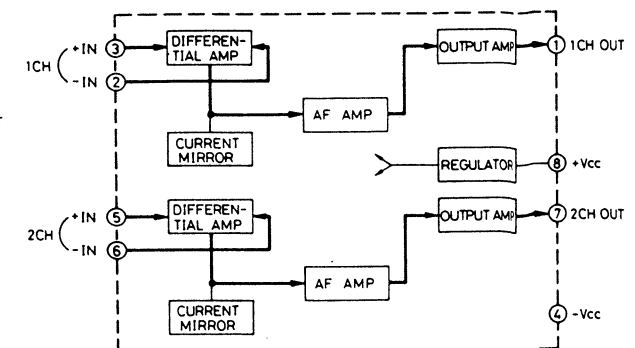
IC401 (AN363)  
FM Multiplex



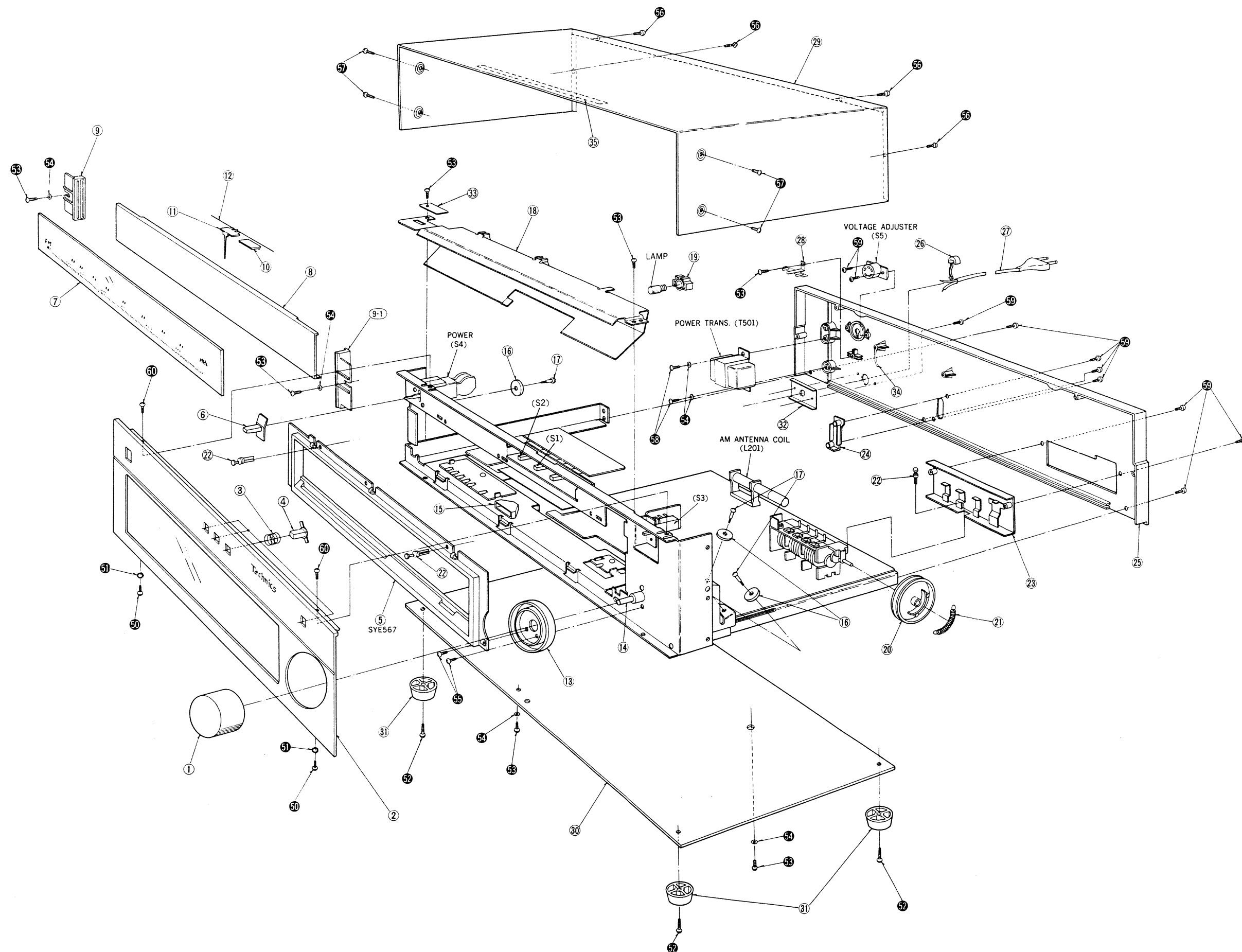
IC102 (AN377)  
FM IF Amplifier & Detector



IC301 (SVINJM4558D)  
DC Amplifier



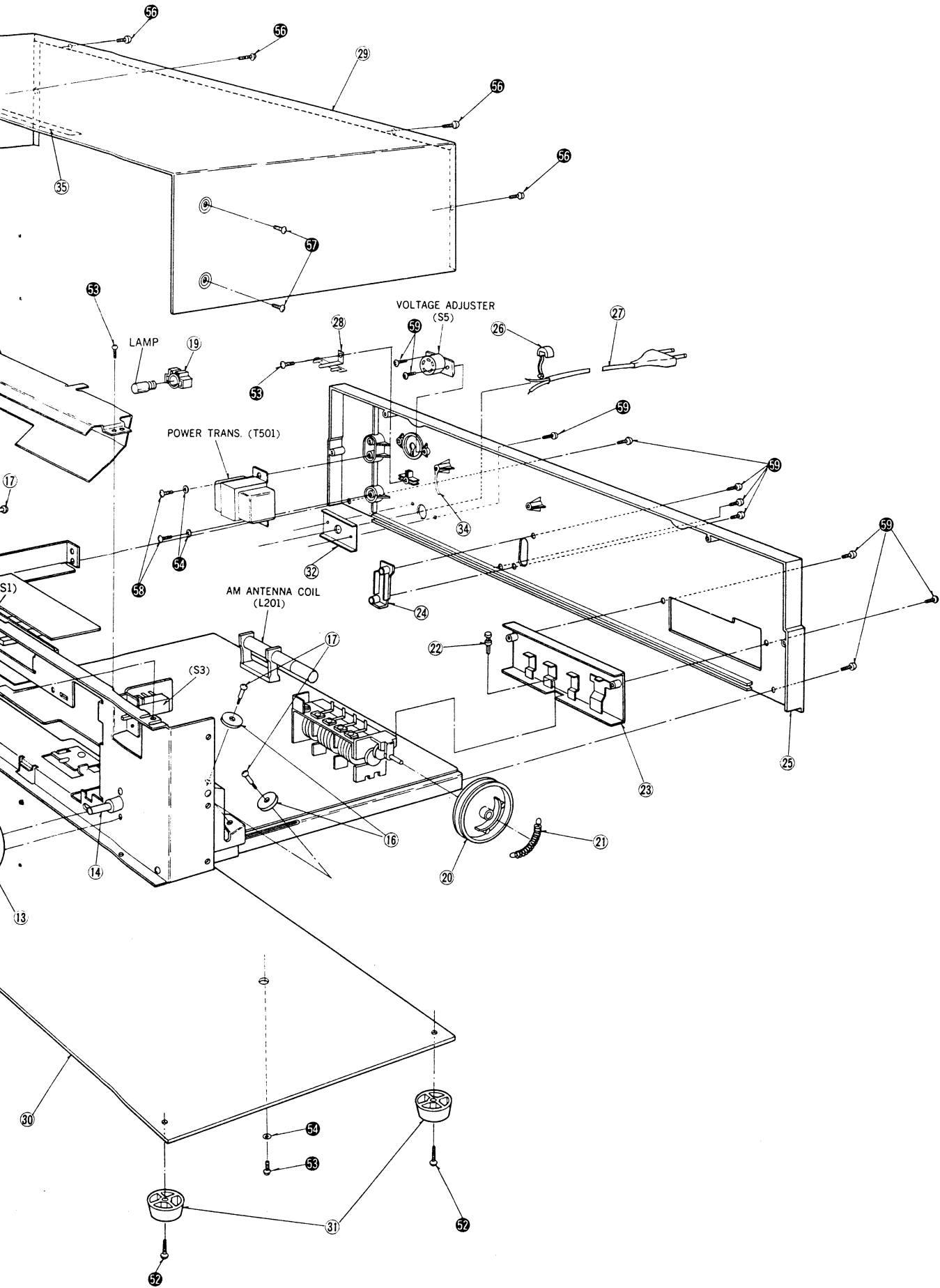
■ EXPLODED VIEW



ST-8044/K ST-8044/K

REPLACEMENT PARTS LIST ... Cabinet & Chassis Parts

- NOTES: 1. Part numbers are indicated on most mechanical parts.  
Please use this part number for parts orders.  
2.  $\Delta$  indicates that only parts specified by the manufacturer  
be used for safety



| Ref. No.                  | Part No.          | Part Name & Description                                   |
|---------------------------|-------------------|-----------------------------------------------------------|
| CABINET and CHASSIS PARTS |                   |                                                           |
| 1                         | SBN819            | Knob, Tuning Control                                      |
| 2                         | SGWT8044N         | Panel, Front (Pearl Silver)                               |
| 3                         | SUS123-1          | Spring, Push Switches                                     |
| 4                         | SBC197            | Button, Push Switches                                     |
| 5                         | SYE567-1          | Ornament, Dial Scale                                      |
| 6                         | SBD19             | Knob, Power Source Switch                                 |
| 7                         | SKD3610           | Scale, Dial                                               |
| 8                         | SDH475-1          | Reflector Plate, Dial Light                               |
| 9                         | SGX6609           | Mounting, Dial Scale (Left Side)                          |
| 9-1                       | SGX6609-1         | Mounting, Dial Scale (Right Side)                         |
| 10                        | SHP35             | Paper, Dial Pointer Slide                                 |
| 11                        | SDP1131           | Pointer, Dial                                             |
| 12                        | SDZ051-2          | Cord, Dial 180cm(70-15/16")                               |
| 13                        | SGX6613           | Ornament, Tuning Knob                                     |
| 14                        | SDT8057           | Shaft, Tuning Ass'y (w/Flywheel)                          |
| 15                        | SHG1483           | Bracket, Servo Lock Indicator Lamp                        |
| 16                        | <b>RDR8-1</b>     | Pulley, Dial Cord                                         |
| 17                        | SHD3X1F           | Shaft, Pulley                                             |
| 18                        | SMP269            | Cover, Dial Light                                         |
| 19                        | SJS2103           | Socket, Dial Lamps                                        |
| 20                        | SDD47-1           | Drum, Variable Capacitor                                  |
| 21                        | SDSA4121          | Spring, Dial Cord                                         |
| 22                        | SHR401-1          | Latch, Antenna Terminal & Scale<br>Ornament M'tg          |
| 23                        | SJF4419-2         | Terminal, FM/AM Antenna                                   |
| 24                        | SJF3223           | Terminal, Output                                          |
| 25 [E]only                | SGP1630-1A        | Rear Panel                                                |
| 25 [X,XA,XAL]             | SGP1630-1B        | Rear Panel                                                |
| 25 [XGH,EG,EB]            | SGPT8044D         | Rear Panel, SGP1630-1A with Name<br>Plate (SGT18090)      |
| 26                        | SHR127            | Bushing, AC Cord                                          |
| 26 [XAL]only              | SHR131            | Bushing, AC Cord                                          |
| 27                        | RJA23ZC           | AC Cord, Power Source                                     |
| 27 [XAL]only              | $\Delta$ QFC1207M | AC Cord, Power Source                                     |
| 28                        | $\Delta$ SJR205   | Terminal, AC Cord                                         |
| 29                        | SKA10410          | Cabinet                                                   |
| 30                        | SKU731            | Bottom Board                                              |
| 31                        | SKLA7-1           | Foot, Bottom Board                                        |
| 32                        | SGP9015-2         | Plate, AC Cord M'tg                                       |
| 32 [XAL]only              | SGP9015-3         | Plate, AC Cord M'tg                                       |
| 33                        | SHR5023           | Rubber                                                    |
| 34                        | SXE513-1          | Clamper, Lead Wire                                        |
| 35                        | SHS6111           | Cloth, Cabinet                                            |
| SCREWS and WASHERS        |                   |                                                           |
| 50                        | XTB3+8BFZ         | Screw Front Panel M'tg (Lower Side)                       |
| 51                        | XWC3BFZ           | Washer, Front Panel Lower Screws                          |
| 52                        | XTB3+16B          | Screw, Feet M'tg                                          |
| 53                        | XTB3+8B           | Screw, Bottom Board, Lamp Cover,<br>& Scale Mounting M'tg |
| 54                        | XWG3              | Washer                                                    |
| 55                        | XTB3+10BFZ        | Screw, Tuning Knob Ornament M'tg                          |
| 56                        | XTB3+8BFN         | Screw, Cabinet M'tg                                       |
| 57                        | XTB4+8FFN         | Screw, Cabinet M'tg                                       |
| 58                        | XTB3+10B          | Screw, Power Transformer M'tg                             |
| 59                        | XTB3+10BFZ        | Screw, Rear Panel & Voltage Adjuster<br>M'tg              |
| 60                        | XTB3+8FFZ         | Screw, Front Panel M'tg(Upper Side)                       |

(E) and (EG) are available in Scandinavia and European only.  
(X) and (XA) are available in Asia, Latin America, Middle East and Africa only.  
(XAL) is available in Australia only.  
(XGH) is available in Holland only.  
(EB) is available in Belgium only.

# REPLACEMENT PARTS LIST ... Accessories & Packing Parts

| Ref. No.             |   | Part No.  | Part Name & Description           |
|----------------------|---|-----------|-----------------------------------|
| <b>ACCESSORIES</b>   |   |           |                                   |
| A1                   |   | SSA253    | Cord, FM Indoor Antenna           |
| A2                   |   | SJP2129-5 | Cord, Connection Shield           |
| A3 [X,XA]only        | △ | SJP5213-1 | Plug Adapter, Power Source        |
| <b>PACKING PARTS</b> |   |           |                                   |
| P1                   |   | SPP575    | Polyethylene Bag                  |
| P2                   |   | SPS1825   | Pad, Left Side                    |
| P2 [XAL]only         |   | SPS1825-1 | Pad, Left Side                    |
| P3                   |   | SPS1827   | Pad, Right Side                   |
| P3 [XAL]only         |   | SPS1827-1 | Pad, Right Side                   |
| P4 [E]               |   | SPG1803   | Carton Box                        |
| P4 [EG,EB,XGH]       |   | SPG1805   | Carton Box                        |
| P4 [X,XA]            |   | SPG1861   | Carton Box                        |
| P4 [XAL]             |   | SPG1863   | Carton Box                        |
| P5                   |   | SQF10057  | Instructions Book, Printed Matter |

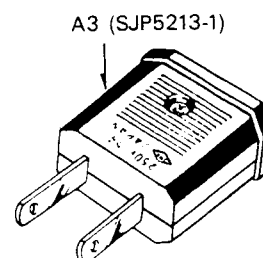
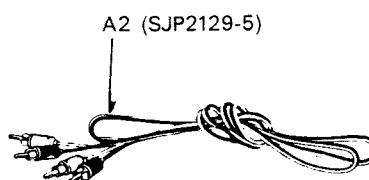
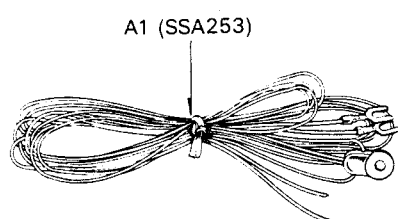
# CHANGE OF PARTS LIST

## ST-8044K (E), (EG), (X), (XA), (XAL), (EB), (XGH)

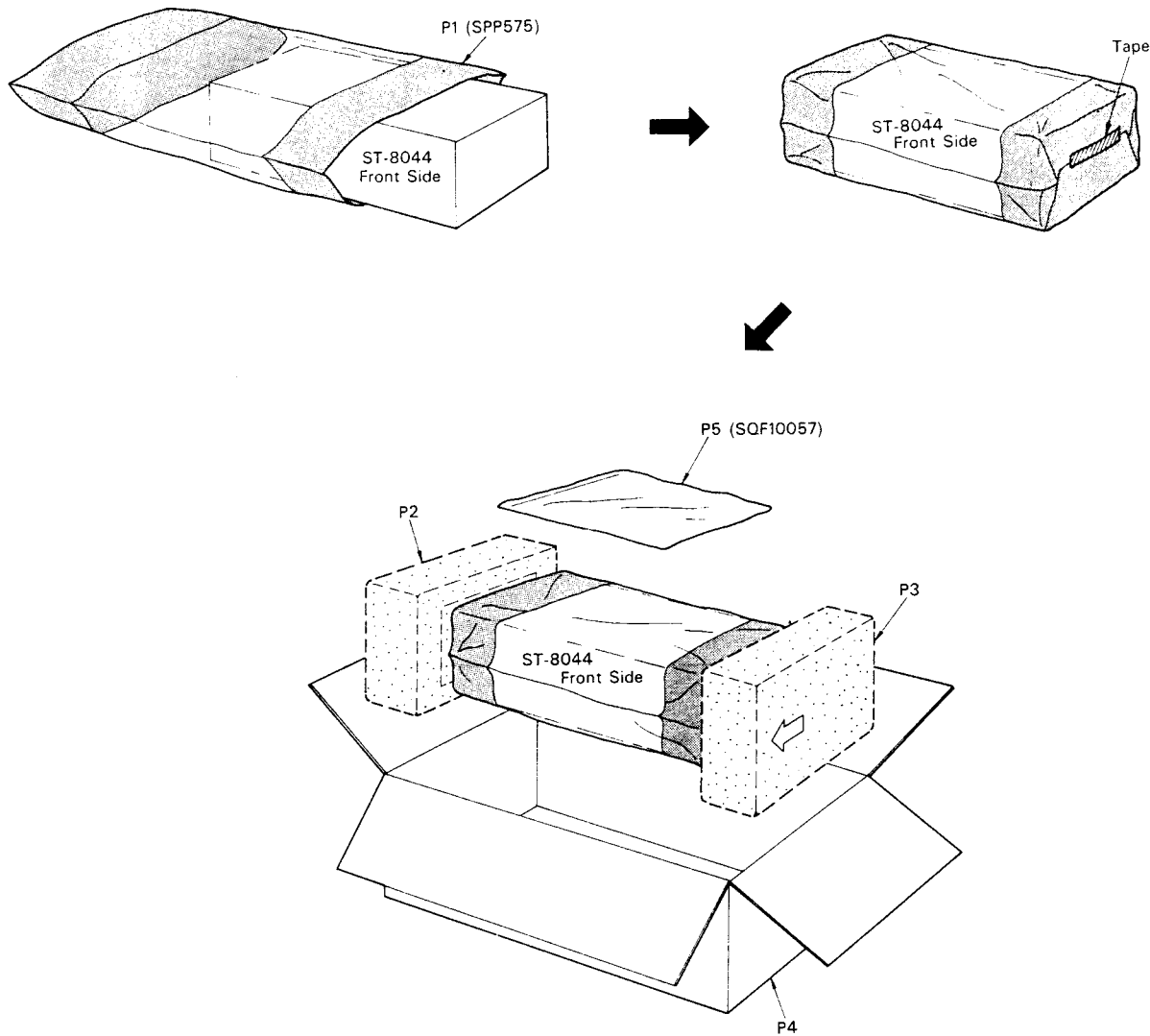
**Note:** This parts list included only the changes of the model ST-8044 parts list.

| Ref. No.                  | Change of Part No.      |                              | Part Name & Description                           |
|---------------------------|-------------------------|------------------------------|---------------------------------------------------|
|                           | ST-8044                 | ST-8044K                     |                                                   |
| CABINET and CHASSIS PARTS |                         |                              |                                                   |
| 1                         | SBN819                  | SBN819-1                     | Knob, Tuning Control                              |
| 2                         | SGWT8044N               | SGWT8044KD                   | Panel, Front (Black)                              |
| 5                         | SYE567-1                | SYE567-2                     | Ornament, Dial Scale                              |
| 6                         | SBD19                   | SBD19-1                      | Knob, Power Source Switch                         |
| 7                         | SKD3610                 | SKD3611                      | Scale, Dial                                       |
| 25                        | SGP1630-1A [E]          | SGP1630-1C [E]               | Rear Panel                                        |
|                           | SGP1630-1B [X, XA, XAL] | SGPT8044KX [X, XA, XAL]      | Rear Panel, SGP1630-1B with Name Plate (SGT19990) |
|                           | SGPT8044D [XGH, EG, EB] | SGPT8044KD [XGH, EG, EB]     | Rear Panel, SGP1630-1C with Name Plate (SGT19570) |
| 29                        | SKA10410                | SKA10417                     | Cabinet                                           |
| 56                        | XTB3+8BFN               | XTB3+8BFZ                    | Screw, Cabinet M'tg                               |
| 57                        | XTB4+8FFN               | XTB4+8FFZ                    | Screw, Cabinet M'tg                               |
| PACKING PARTS             |                         |                              |                                                   |
| P4                        | SPG1803 [E]             | SPG1957 [E]                  | Carton Box                                        |
|                           | SPG1805 [EG, EB, XGH]   | SPG1959 [EG, EB, XGH, X, XA] | Carton Box                                        |
|                           | SPG1861 [X, XA]         |                              |                                                   |
|                           | SPG1863 [XAL]           | SPG2033 [XAL]                | Carton Box                                        |

# ACCESSORIES



## ■ PACKINGS



## ■ NEW INDICATION MARK

The **S** mark has been used for the indication of specified parts for an assurance of safety, but it has been changed to **△** mark. When replacing parts, be sure to use parts with correct numbers with reference to the circuit drawing or the repair parts list.

